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Social Security and Economic Development in Korea

- Collected Papers -

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A Biographical Note on the Author

Dr. Chong-Kee Park is currently a Professor of Economics at Inha University. In the past, he took part in the series of Fourth through Seventh Five-Year Economic Development Plans in 1975～1991. His contribution was especially highlighted during his position as chairman in the Sixth and Seventh Five-Year Plans undertaken by the Social Security Planning Committee. He also held positions of a Senior Fellow and Research Director at the Korea Development Institute (KDI) in 1971～1983 and served a President of the Korea Tax Institute in 1993～1995. Later, he became as a chairman of the Medical Care Reform Committee in 1994 and the National Pension Scheme Reform Committee from June, 1997 to December, 1997. His educational background consists of M.A. in Economics at the University of Illinois and Ph.D. at George Washington University.

Among the numerous books written by the author, the most prominent of his works include *Health Financing and Medical Insurance in Korea (1979), Human Resources and Social Development in Korea (1980), and Public Finances during the Korean Modernization Process (1986).* In addition to the above publications, he has produced many published articles and papers.

Foreword

Social security is a preventive and comprehensive protection system that serves as a social safety net for the people. It is designed to alleviate social risks among workers and their families, such as income loss due to old age, unemployment, disability, and work-related injury.

The beginning of social security programs in Korea can be traced back to the early 1960s. Since the adoption of the Civil Servant Pension Law in 1960, the government of Korea was committed to evolving policies and programs for the development of social security appropriate to the country's prevailing conditions. The introduction of Unemployment Insurance in July 1995 formed a complete social security system composed of four major schemes: National Pension, Health Insurance, Worker's Accident Compensation Insurance, and Unemployment Insurance.

Now is the right time to critically review the overall development process of the Korean social security program and document its past experiences. This task was undertaken by Professor Chong Kee Park of Inha University, who has served as a member of the Task Force Committee and drafted the National Welfare Pension Legislation in 1973.

This book of selected papers by the author illustrates a comprehensive review of significant developments and critical issues of social security. Furthermore, the author proceeds to closely examine the position of social security in the process of economic development, the scope and issues of national pension scheme, the problem of health care and the development of health insurance program.

It is hoped that this report will render useful to those who may be interested in the development process of the social security programs in Korea. It is also anticipated that in some small way this volume will contribute to further study and analysis of social security programs in Korea.

The views expressed in this volume are the author's and are not presented as the official views of the Korea Institute for Health and Social Affairs.

Hacheong Yeon, Ph.D.
President, KIHASA

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Ⅰ. Introduction

In the thirty-five years which have passed since the enactment of the social insurance legislation by the National Assembly, there has been a rapid and steady expansion of risks covered by social insurance as well as an increase in persons covered. The number of persons covered by various social insurance programs increased in terms of gross estimates from 1.9 million in the mid-1970s to 64.6 million in 1995. In 1973 the Korean population was spending roughly 48 billion won for various social security programs including social insurance, public assistance and social welfare services. This amount represented slightly less than one percent of the 1973 GNP. Social security expenditures, however, increased dramatically to over 11 trillion won by 1994, accounting for 3.7 percent of GNP.

During the thirty-five years many important and far-reaching changes in the social security legislation and administrative organization have been made. These changes reflect not only the adjustments to keep the program in line with rising levels of income and aspiration of the people and administrative experience, but especially in the broadening in the character and scope of social security. Various politico-economic, demographic and social factors including family life-styles had significant impact on the development of our social security system.

We have accumulated considerable knowledge of the practical problems involved in formulating and administering social security schemes since the early 1960s when the initial program was

being implemented. We have gleaned over thirty-five years' experience in administering and perfecting the large social insurance programs -- health insurance, the national pension scheme, and industrial accident insurance program. An unemployment insurance law has been effective since the middle of 1995. The public assistance and social welfare service programs are in operation throughout the country. However, the mosaic of social security programs in Korea represents what is perhaps one of the most complex systems existing in the world. This is clearly due to the progressive growth and expansion of the social security programs.

Yet, social security in Korea, with social insurance as its keystone, is widely accepted as an established part of Korean institutional life. The general principle of social security is now supported by all political parties. Employers' organizations, labor unions, and civic and professional groups all endorse the basic idea. Any review of the social security institutions and policies in Korea leads to an inevitable realization that social security is an important socio-economic invention and that it will evolve along with other institutions to remain a program adapted to Korean experience and ideals.

Social security is a complex system with many economic, financial, and social ramifications. It warrants, therefore, careful consideration with respect to its impact on the economy in general and on individuals and families in particular. Because of the special law provisions, the impact on certain industries and households in different income levels is also of special importance. To understand and appraise past and present developments in Korea's social security as well as any future changes, the familiarity with many different forces in our society is vital. The historical background of the establishment and growth of social security in Korea, social and political institutions, economic conditions, Korea's newly emerging status in the highly competitive world economy, and the inter-Korea relations -- all these and more are part of the picture.

Although much has been accomplished during the thirty-five momentous years of social security, there are obvious gaps and inadequacies that demand special attention. There is general recognition of our present programs as inefficient. The coverage of existing old-age pension programs must be expanded and the benefits need to be readjusted, while an adequate balance among different benefit schemes should be maintained. There are innumerable factors involved in determining how coverage can be extended, to what extent an equity in benefits can be attained, and how they are to be financed. Actuarial estimates made at the end of 1996 indicate that scheduled benefits will exceed revenues of the National Pension Fund by 2022 and a variety of proposals to address this problem are being forwarded. Some persons and groups have suggested radical changes in the methods of administering the health insurance program. On the other hand, there has been strong advocacy for continuation of the existing administrative structure.

The social security system in Korea is now entering a new era, a time to rethink and reshape this great social institution to better meet the needs of the Korean public in the future. As we enter the forthcoming twenty-first century, what does our social security balance sheet show in terms of assets and liabilities? What changes in the program are required to meet the emerging new challenges and trends ahead of us? Some of the many specific issues and related problems, that are most likely to occur in the decade ahead, can be illustrated by citing just a few of them.

Does a particular program lead to bureaucracy and to increasing government controls?

What is the desirable level of cash benefits according to the different social security pension programs?

Should everyone receive the same benefit or should the benefits vary in relation to previous earnings, contributions, the length of time in the program, or should they be soley based upon need?

What should be the role of the private sector and how can a governmental system of social security work together with private programs? Are company-based occupational pension plans desirable?

How large pension reserves are necessary in old-age insurance? What would be the most efficient way of managing the reserve fund? Who should bear the costs of pensions and in what way?

How should social security programs be administered? How can national standards and decentralized administration be assured?

What are the economic and social implications of a social security program for business, labor, the family, and the nation as a whole?

These are only the beginning obscure questions that need to be seriously dealt with in the future. They are key issues that exist today in Korea and it is likely to continue to be for some time in the future. Newer challenges must be successfully addressed if our social security programs are to be adequately maintained in the future.

The major purpose of this study is to assess the social security situation in Korea, by making a synthesis of the improvements and changes that have taken place since the early 1960s. First the study focuses on the aims to fill the gap in the existing knowledge of the social security system in Korea. In addition, the study has a practical purpose in that, by illustrating the role that social security plays in Korea's national development and the function it really serves, the goals, means and method to achieving better social security are clarified. Moreover, it contributes useful information for an eventual reappraisal of our social institutions and policies as we enter the new era of globalization of "quality of life". Experiences of other industrial countries are also drawn as we make critical policy decisions for the future of our own social security system.

Ⅱ. Economic Development and Social Modernization

1. Economic Growth and Social Development: The Case of "Korean Model"

The economic performance of Korea during the past three decades is clearly one of the remarkable success stories of economic development in the world. The high and sustained growth rates Korea achieved during this period are almost without precedent in the development world, except for three other so-called "Asian dragons". During the course of implementing a series of successive five-year development plans since the early 1960s, Korea has been transformed from one of the world's poorest countries to a confident, modern and industrialized economy, with more than $11,000 in per capita income. The economic indices may not reveal a complete picture of Korea's economic progress, however, the three decades have been marked by rapid growth of GNP and income and by structural changes in the economy such as the rising shares of manufacturing and exports.

Korea's outward-looking development strategy and aggressive industrialization policy since the early 1960s resulted in an unprecedented record of economic growth. The annual growth rate hovered around 3 percent in the early 1960s, but it abruptly increased to an average of 7.9 percent in the first five-year

development plan period (1962～66). Furthermore, the average annual growth rates of GNP during the second (1967～71) and third (1972～76) plan periods increased to 9.7 percent and 9.1 percent, respectively (see Table II-1). Although the growth rate decelerated to 5.6 percent in the fourth plan period (1977～81) due to the second worldwide oil crisis and the political unrest in 1980, the Korean economy in 1986～88 demonstrated unprecedented double-digit growth rates for three consecutive years. The Korean economy in recent years, however, suffered a marked slowdown in growth rates, recording 5 percent in 1992 and 8.7 percent in 1995. As a result of rapid and sustained economic growth over the past three and a half decades, Korea's per capita GNP in 1995 reached $10,076. It shows a sharp increase over the $80 per capita income that was earned in the early 1960s.

Table Ⅱ-1. Per Capita GNP and Growth Rates, 1962～1995

(Unit: %)

	Per Capita GNP		GNP Growth Rates
	in thousand Won	U.S. Dallars	
1962	13	87	2.2
1967	43	142	6.61
1972	125	319	4.6
1977	490	1,011	10.1
1982	1,341	1,834	7.5
1987	2,647	3,218	12.3
1992	5,471	7,007	5.0
1995[1)]	7,769	10,076	8.7
1962～66			7.9
1967～71			9.5
1972～76			8.6
1977～81			5.6
1982～86			9.3
1987～91			10.0
1992～95			7.0[2)]

Notes : 1) Preliminary estimates.
2) For three-year average.
Source: The Bank of Korea, *National Accounts*, 1994 and 1996.

Along with economic growth, Korea also managed to transform from a traditional agricultural economy to an industrial one. It is widely acknowledged that the great structural transformation Korea experienced over the last thirty-five years was comparable to what Western industrial countries achieved over a hundred-year period. In other words, Korea "condensed" a century's worth of economic growth into only three decades (Cho, 1994). The period from 1963 to l971 was particularly important because of the significant progress made in strengthening industrial base and carrying out major changes in the nation's development strategies through institutional changes and policy reform.

The rapid growth of the GNP and employment has been accompanied by a substantial structural transformation in the economy. During the past thirty-odd years, significant structural changes have occurred as a result of rapid development in manufacturing and social overhead capital at the expense of the primary sector. The GDP share of the primary sector including agriculture and fishery declined from about 40 percent in the early 1960s to only 7 percent in the mid-1990s. At the same time, the share of the manufacturing sector sharply increased from 14 percent to 27 percent over the same period (Bank of Korea, 1994 and 1996).

Available statistics reveal that during the 1963～80 period total employment increased at an average annual rate of 4 percent, compared with 3 percent for the potential labor force. Some 6 million new jobs were created between 1963 and 1980, absorbing a large pool of unemployed and underemployed persons in rural as well as urban sectors. The extent of the structural change is highlighted by the sharp increase in the share of manufacturing in total employment from only 8 percent in 1963 to 22 percent by 1980, while the share of agriculture decreased from 63 percent to 34 percent. Thus, Korea's development strategy, based on effective use of the surplus labor in labor-intensive manufacturing combined with a strong "trickle-

down" effect, has measurably improved the employment situation and thereby helped to increase the level of income (Park, 1984).

Korea's successful development also owes much to the dynamic role of the private sector. The role of business enterprise has been enhanced as a result of a series of strong government measures promoting entrepreneurial development. The energetic driving force and innovative spirit of business leaders contributed significantly to transforming Korea from a poor agricultural society to what it is today.

The government of Korea has been heavily and actively involved in promoting economic development. Sound development strategy and effective economic management policies were major ingredients in achieving rapid growth in Korea. Many close observers of Korean economic development generally agree that Korea's rapid economic growth and structural change were largely the result of the surge in export trade. The government provided attractive incentive measures and vigorously promoted export trade. In the 1960s and the early 1970s Korea gradually shifted trade policies from import substitution to promote manufacturing exports. To stimulate export trade, the government introduced a strong export incentive structure which provided a wide range of instruments including tax exemptions, financial subsidies, accelerated depreciation allowances and duty-free imports for exports. As a result, total exports increased at an average annual rate of 39 percent between 1962 and l971, and their share of GNP rose from 2.4 percent to 11.7 percent during the same period (Suh, 1992).

Capital formation has been substantial and shows a fairly steady rate of growth. The continuously rising ratio of gross investment to GNP enabled Korea to achieve sustained growth. The economy has also made noteworthy progress in mobilizing domestic resources. Domestic investment, combined with rapidly expanding human capital, were the principal engines of growth.

The successful economic performance Korea experienced has been the result of a number of interacting economic, political, and

social factors. Some of the major factors responsible for this rapid economic growth were the emergence of a strong political leadership, increasing government emphasis on economic development, high quality human resources, the heavy inflow of foreign capital, and availability of large export markets. The Korean economy did achieve noticeable growth, particularly since the mid-1960s. In 1962 the government formulated the basic strategies for economic development by launching the first five-year development plan, and it generated "a large measure of popular confidence in the intention of the government, and also in the future of the economy and society" (Lee, 1968). With the emergence of a strong political leadership fully committed to economic development, Korea moved ahead rapidly to become one of the fastest-growing economies, after many years of rebuilding the war-stricken economic infrastructure.

The Korean experience thus offers an important example of the mutual reinforcement of economic, social, and political development. Korea has become known throughout the world for the success of the "Korean model", combining rapid economic growth and industrialization with a relative equity in income distribution. The three main factors in maintaining relatively equal distribution of income were the land reform, with a well-implemented ceiling on landholdings which brought about greater social equality through the redistribution of cultivatable land; the approach towards full utilization of under-and un-employed workers as a result of specialization on labor-intensive manufacturing industries; and the achievement of high literacy and universal access to primary education. The forward-looking growth strategy substantially expanded labor-intensive manufacturing exports, which increased employment opportunities, thereby benefiting those at the low income level.

The broad sharing of the benefits of economic growth in Korea is also reflected in data on the progress toward meeting basic needs (see Table II-2).

Table Ⅱ-2. Major Economic and Social Indicators, 1965~1995

	1965	1995[1)]
GNP per capita (US$)	105	10,076
Population (in thousands)	28,705	45,093
Population growth rate (%)	2.5	0.9
Persons employed (in thousands)	8,206	20,379
Unemployment rate (%)	7.1	2.0
Life expectancy	58	73.5
Men	54	69.6
Women	60	77.4
Infant mortality rate	52	13
Crude death rate	11.9	5.5
Population per physician	2,645	784
School enrollment ratios		
Elementary	98.1	98.7
Secondary	35.4	95.3
Tertiary	7.0	44.4
Number of colleges & universities	131	266
Paved roads (%)	5.6	76.0
Persons per passenger car	1,123.9[2)]	7.8
Piped water supply (%)	32.3[2)]	82.1
Housing supply rate (%)	78.2[2)]	86.1
Percentage participated in family planning	16.0	77.4
Daily calorie intake (per capita)	2,189	2,863

Notes : 1) 1995 or the most recent year for which data are available.
2) Refers to 1971.

Sources: Derived from various statistical reports of the Bank of Korea; National Statistical Office; Ministry of Education; Ministry of Health and Welfare; Economic Planning Board.

The improvement in the standard of living was significant. For example, the reduction of the fertility rate has contributed significantly to improved social and economic conditions in the country. With effective family planning programs, Korea was able to bring down the growth rate of population from 3 percent in 1960 to 1.6 percent in 1980 and to less than one percent by 1995.

Family planning programs have reduced the average family size and improved the health and survival of women and children, resulting in better economic and environmental prospects in Korea. There were parallel improvements in other indicators of social progress, such as nutritional standards, adult literacy, life expectancy, the infant mortality rate, supply of clean water, and school enrollment (see Table II-2). In addition, substantial government efforts were directed toward improving the quality of rural life by providing such infrastructure as roads, electricity, telephone, and piped water.

There seems to be a general consensus that Korea's successful performance of the last three decades had a great deal to do with human resource development. The solid human capital base of Korea, combined with appropriate human resource development policy, played an instrumental role in the nation's economic development during the 1960s and the early 1970s. The labor force was characterized by a high level of literacy and education, adaptability, and industriousness. The achievement of a high literacy rate and universal access to primary education provided people with an opportunity of fully developing their own skills and potential in their work.

Thus, the secret of "Korean success" was the appropriate use of available human resources. According to one theory, both rapid economic growth and relative equity in income distribution could be attributed to the fact that human capital formation in Korea preceded physical capital accumulation, instead of following it as in most other developing countries (Singer and Baster, 1980). We may recall that the late Theodore Schultz, a Nobel Prize-winning economist, concluded from his monumental study on human capital that in the United States human capital is roughly twice as important as tangible capital in generating economic growth. In an era of high technology and globalized competition, the role of human resource will be even greater in order for Korea to make a successful transition toward the knowledge-and human-based economy.

Notwithstanding its remarkable economic progress and increased living standard, Korea is confronted with newly emerging problems in the social spheres. Among these problems are a discrepancy between economic and social development, inadequate income security programs for the aged and other underprivileged groups, an imbalance in the distribution of income and wealth among different social groups and in different regions, and various problems arising from rapid urbanization. These issues have not received due regard in the past, causing serious problems, which have begun to be felt more acutely in recent years.

Overconcentration of population in a few large cities has generated severe strains on health, education, housing, environmental protection, and other social infrastructure in these urban centers. The extent of Korea's urbanization is illustrated by the data presented in Table II-3. In 1960 those who reside in cities comprised only 28 percent of the total population. By 1995, however, this percentage had increased to nearly 78 percent, and it is projected to further increase to 83 percent by 2005. Seoul, the nation's capital and the largest city, alone accounts for roughly one-fourth of the total population. The rapid industrialization and urbanization which have taken place in Korea are also creating greater accident and sickness hazards in the nation. Recently published statistics on traffic-related accidents reveal that Korea ranks third in the world in the number of traffic fatalities per 10,000 vehicles (The Korea Times, November 2, 1996). The implication is that the unexpected death of the breadwinner, due to traffic accidents or any other reasons, leaves a family without adequate income security.

Table Ⅱ-3. Urban and Rural Distribution of Population, 1960~2005

Year	Whole Country	Urban Area[1)]	Rural Area
1960	100.0	28.0	72.0
1970	100.0	41.2	58.8
1980	100.0	57.3	42.7
1985	100.0	69.3	30.7
1990	100.0	74.0	26.0
1995	100.0	77.7	22.3
2000	100.0	80.6	19.4
2005	100.0	82.9	17.1

Note : 1) A city with a population of 50,000 persons or more is defined as urban by the Korean census.

Source: Ministry of Health and Welfare, *Yearbook of Health and Welfare Statistics*, 1995.

The failure of past and current strategies to achieve a more balanced pattern of development is partly due to the lack of appropriate social institutions for ensuring that economic growth is accompanied by social progress. The dominant focus of the development effort of the past three decades has been directed to rapid economic growth (efficiency), and in the process of pursuing the "growth first and distribution later" development strategy, the equity issue and social development policy was a low priority for decisionmakers. The past improvements in basic needs and general welfare in Korea could be attributed not so much to increased emphasis on social aspects of development in the government's policy-making process and thus to an expansion of social development expenditures per se, as to development strategies that resulted in rapid industrialization and expanded employment opportunities.

In the 1970s the distribution of income began to deteriorate, primarily due to the rapid rise in wages of skilled labor accompanied by government policy to promote the development of heavy and chemical industries, and of the concentration of industrial activities in the hands of few business conglomerates (see Table II-4). In light of this growing inequality, social welfare

and equity became an increasingly important issue in the late l970s. The widespread use of such new catch phrases as "the welfare state" and "the prosperous eighties" during the late 1970s and the early 1980s greatly stimulated expectations of the people as a whole and raised levels of aspiration among the underserved and the underpriviledged in particular. But when it came to the actual allocation of the nation's resources, the social development sector almost always suffered in comparison with the economic sector. Although social development received growing attention after the formulation and implementation of the fourth five-year plan (1977~81), efficiency remained the government's primary objective.

Table Ⅱ-4. Estimated Size Distribution of Income, 1965~1995

(Unit: %)

Income Group	1965	1970	1976	1988	1993
Bottom 20%	5.8	7.3	5.7	7.4	8.5
Middle 20%	15.5	16.3	15.4	16.3	17.5
Top 20%	41.8	41.6	45.3	42.2	37.5
Gini Coefficient	0.344	0.332	0.381	0.335	0.284

Source: National Statistical Office, *Social Indicators in Korea*, 1995 and 1996.

This point becomes quite clear when measuring the percentage of social development expenditure in total government spending or in the GNP. Korea's social development spending is still relatively low by international standards. In the past Korea has committed a much smaller proportion of government expenditure to health, social security, and other social services than have other countries at similar stages of development. As shown in Table II-5, in 1993 social development expenditure, including education, accounted for about 38 percent of total central government expenditure in Malaysia and Brazil, 50 percent in Spain, and 63 percent in Germany. In contrast, the Korean government spent only 29 percent on such governmental services

in the same year. If education is excluded, the magnitude of difference among countries listed in the table becomes even larger, ranging from a low of 12 percent in Korea to a high of 35 percent in Brazil. It is noteworthy that heavy national defense burdens may partly explain the low level of government expenditures devoted to social development in Korea.

The composition of government expenditure has undergone considerable change during the last two decades, but public spending on social development has always been much less than that on economic development. It is interesting to note from Table II-5 that social development spending in Korea is predominant in education and only a small fraction is allocated for health, social security, and other social services. Although government expenditure on the non-education components of social development increased steadily over the last two decades, it is still low by any international standards. The share of government expenditure devoted to health care in Korea has been particularly low over the years. Government support of health programs, including protection of living environment amounted to 601 billion won in 1995, accounting for only 1.2 percent of total central government spending. Social security expenditure of 2,920 billion won, on the other hand, represented 5.6 percent of total government expenditure in 1995 (Ministry of Health and Welfare, 1996) ; Table Ⅱ-5 shows 11.2 percent for 1993 which includes housing and related expenditures.

Table Ⅱ-5. International Comparison of Government Expenditure by Major Functions, 1993

Country	GNP Per Capita (Dollars)	Percentage of Total Expenditure[1]					Total Expenditure as % of GNP
		Health	Social Security and Welfare[2]	Education	Defense	Others[3]	
Brazil	2,930	5.2	30.0	3.6	2.6	58.6	25.6
Malaysia	3,140	5.7	11.4	20.3	11.8	50.9	26.7
Greece	7,390	7.4	14.7	8.5	8.9	60.4	43.1
Korea	7,660	1.0	11.2	16.8	20.1	50.9	17.1
Spain	13,590	6.1	38.8	4.7	4.2	46.3	35.1
Australia	17,500	12.6	33.7	7.2	7.9	38.5	28.2
U.K.	18,060	14.0	32.5	3.3	9.9	40.3	43.4
Germany	23,560	16.8	45.9	0.8	6.4	30.1	33.6
U.S.	24,740	17.1	31.7	2.0	19.3	29.9	23.8
Denmark	26,730	1.1	41.3	9.8	5.0	42.9	45.5

Note : 1) Refers to central government expenditure.
2) Includes housing and related expenditure.
3) Includes economic services.

Source: The World Bank, *World Development Report*, 1995.

This limited government support of health services and social security is "symptomatic of the government's approach to social services in general. They have been left to the private sector with resulting unevenness and inequality in the distribution of services, especially for those services that have the inherent properties of public or social goods" (Mason et al, 1980). The high private cost of health services and old-age income security works against egalitarian ideals and discriminates against low-income groups. Heavy reliance on private expenditures in areas of social needs such as health and social security is hardly justified in the face of an outcome resulting in greater inequality in the distribution of income. In addition, it could become a source of reduced social mobility and increased social tension.

It is also important to recognize that social development does not take place in a vacuum. Neither the type of social problems

we are concerned about nor their ultimate solutions are of a purely social nature. The process of social development is as much affected by economic and political considerations as by social factors. There is a growing awareness now among economists and planners that the goals of equity and social justice could be better achieved if more social development policies are enunciated from a broader perspective to parallel and complement economic development. These policies, translated into well-conceived, concrete programs and actions, could then be incorporated into broader national development strategy. There are areas in which Korea's social development is particularly lagging behind the pace of economic development; and this lag foreshadows social, economic, and political problems of increasing gravity.

There has now emerged a strong conviction that economic development cannot be regarded as satisfactory unless the rising income which it generates is widely shared by all segments of the population. Recently, an improvement in the "quality of life" and welfare has become a more prominent objective of government policy in Korea. This has been echoed by Sohn, Hak-Kyu, former Minister of Health and Welfare, when he stated: "The idea of quality of life is tied with the concern for social justice as well as human rights. It has become the ultimate goal of the nation. . . . This is the goal to be shared by the policies in all spheres of society — political, economic, social and cultural — not by welfare policies alone" (Sohn, 1996).

Thus, Korea is about to witness a gradual shift in policy emphasis from strictly pursuing high growth for material production to strengthening the fundamentals of socio-economic and human development during the years immediately ahead. As Korea moves into the twenty-first century, the nation will face a variety of challenges and the high growth-induced problems are likely to multiply unless counteracted by specific social and human development policies. For instance, economic and social difficulties recently faced by Korea appear to be a warning that the pursuit

of high growth at all costs will cause growing pains as the economy matures. To concentrate all-out effort on quantitative growth without considering the qualitative aspect of development has its danger. Thus, Korea needs a much more balanced approach with regard to socioeconomic development. The social aspects of development are slowly gaining an increasing prominence in the thinking of policy-makers, administrators and practitioners concerned with planning and implementing Korea's modernization policies.

In this regard, social security is one of the important social institutions that deserves closer scrutiny and reexamination. Social security development fits in as one of the essential building blocks of socioeconomic development. As Korea progresses toward a more mature economy, fully integrated with the world economy, it will need to address this important issue. The realignment of the social security system is becoming a pressing issue, especially in the areas of old-age retirement security and medical insurance. As a new member of OECD, a prestigious club of world economic giants, Korea has to excel in fulfilling its missions in social sphere as well. It must play roles commensurate with the economic status it has achieved.

2. The Role of Social Security in the Korean Socio-Economic Context

Social security implies the protection which society provides for its members, through a series of statutes and public measures, against the economic and social distress that otherwise would be caused by the interruption or loss of earning power resulting from old-age and death, invalidity, work injury, unemployment; the provision of medical care; and the provision of subsidies for low-income persons and families (International Labour Office, 1984). Thus, the social security as an institution or a system embraces social insurance, public assistance, and related social

welfare services. A distintinctive feature of social insurance programs is that they are financed by shared contributions between workers and employers and that the benefits under such schemes are established "as a right". On the other hand, the entire cost of the public assistance program is met by the government, including local units of the government.

Korea's social security system is today one of the major institutions that contribute to social and economic progress; it plays a crucial role in national development and modernization. As it contributes to the improved welfare and productivity of the work force, it is one of the ultimate objectives of economic development. A well-designed social security infrastructure is essential in the pursuit of social justice, and is neither secondary nor incidental to economic growth.

The rapid expansion and development of social security in Korea, however, gave rise to divergent opinions on the role of social security and its relation to economic growth. The social security system is often perceived by the government's economic authorities as an economic burden, but for social planners and other experts it is not only an indispensable factor for social progress but also an important instrument of national development. Furthermore, economic planners and social security officials are often wary of each other. The economic and financial officials have been uneasy about the relative autonomy of the social security system. Conversely, social security managers have been apprehensive that economists look only toward tangible capital investments as the engine of development, with little or no room for social security development.

Thus, it is imperative that we properly understand the genuine role and purpose of social security in the process of economic and social development. A careful examination of its principal aspects -- the relationship between social and economic development, the economic incidence of social security, the adaptation of the system both to priority requirements and to the changing needs of society -- should make it possible to arrive at

a more balanced and realistic appraisal of the social security system.

Most of the traditional development models, including the so-called Harrod-Domar's growth model, depends much too exclusively on physical capital for enlarged production and neglects social factors. Likewise, economic development objectives usually emphasize capital formation. Economists who regard the lack of capital goods as the major barrier to accelerated economic growth oppose social security programs based solely on their views that social security effects the increasing of personal consumption and the reducing of savings and investment. Lately, however, there has been a growing agreement among economists that development involves something more fundamental than mere investment and production, with an increasing recognition that human and social factors are crucial in economic development.

Another development model, however, considers the translation of increased output or economic growth into an improved social profile. This has the advantage of making human betterment the measurable objective, rather than mere increases in production. It is said that those developing countries that convert resources into a better social profile for its people achieve a relatively better rate of economic growth in subsequent periods (Kassalow, 1968).

Over the past three decades, Korea has been successful in translating rapid economic growth into better health, education, nutrition, housing, later becoming a basis for economic performance in the succeeding periods. Social security also fits in as one of the important building blocks of the social profile. If Korea is to make a successful transition into the unfolding age of globalization based on the improved quality of life, it needs to critically reappraise and streamline the social security system (Yeon, 1996).

For development and modernization purposes, social security should be regarded both as an objective for human development and an effective instrument for a more balanced national development. Korea is now at a critical juncture of its development, challenged by increased international competition and

rapidly rising demands for a better social profile at home. The long-term development potential of Korea will largely depend on how successfully the Korean society will manage to maintain an appropriate balance between social progress and economic development.

Yet, social security is still regarded as a luxury institution. This view, based strictly on economic consideration, simply ignores the social purpose of the social security system, and the reason for which the system was created. By guaranteeing the worker's income in certain contingencies that prevent him from receiving a wage and by facilitating the provision of medical care, social security stands out today as one of the most effective instruments of social progress.

The social security system is generally thought to pose severe economic burden and thus, an obstacle to further economic growth. There is no doubt that the implementation of social security programs will impose financial costs on the government and the nation as a whole. To the extent that these costs represent a diversion of resources that would otherwise be devoted to promoting economic growth, social security spending may decrease economic efficiency. In Korea, however, it is most unlikely that social security expenditures had such effects, because they claimed only a small amount of government resources (Suh and Yeon, 1992). Although the central government expenditure on social security increased somewhat during the last ten years, it amounted to 2,920 billion won in 1995, representing only 5.6 percent of total central government spending and 0.8 percent of GNP (Ministry of Health and Welfare, 1996). Furthermore, the social security program serves an important economic objective in addition to its social objectives. It lessens insecurity among workers and their families, and thereby enhances the morale, stability, and productivity of the labor force. By facilitating access to medical care, social security can have a positive effect on the state of health of the workers. It is generally assumed that workers are expected to perform better under the conditions of

improved health, better income security, and general well-being. In addition, social security programs can play a significant role in promoting economic growth by easing social and political tensions (Suh and Yeon, 1992).

Social security will also contribute to development by increasing the rate of savings and investment potential in the country. Where social security system provides a funded old-age insurance program, a relatively rapid accumulation of pension reserve funds is brought about. Economic planners have not fully recognized the value of the social insurance program in accumulating capital funds for financing priority public sector projects. According to the national pension fund operation in Korea, over 57 percent of total reserve funds (18,160 billion won) available at the end of 1995 was diverted to financing various public sector projects (National Pension Corporation, 1996). Thus, economic and social development programs can be made to complement, rather than compete with, each other in pursuing the common objective of improving the general welfare of the population. On that ground alone, social security undeniably has its place in the future development of Korea.

While social security programs, intelligently conceived and implemented, need not work against the interests of economic development, there are other important considerations that should not be overlooked from an objective point of view. How to translate the present state of Korea's economic development into actual improvement of social security is a question that can be discussed at great length. If it is to be effective, the process of development must be pursued both quantitatively and qualitatively, that is, economic development and social progress must be closely coordinated if serious mistakes and distortions are to be avoided.

To deal with the question of the desirable or acceptable range of social security schemes, we need to ask: what "amount" of social security is Korea able to bear at the present stage of its development? It now appears that there is a fairly wide margin for assessing the balance to be established between that which is

socially desirable and that which is economically feasible. The ambivalent role of social security in economic development is one of the fundamental factors to be taken into consideration: despite the weight of its economic burden, social security can also contribute to growth if it is appropriately organized.

Up until now, the Korean government, being very conscious of any economic burden, has exercised considerable prudence. Taken as a whole, the economic cost of social security remains light, representing less than 4 percent of GDP. The reason that Korea still devotes only a small proportion of its national income to social security can be easily explained by the limited scope of contingencies covered and by the limited group of the population that is protected. There is no doubt that the economic burden of social security in terms of the percentage of national income is higher today than it was in the early 1960s. It is the result of gradual extension of coverage of new contingencies and persons and of financial readjustment that have been made with existing programs.

Although the nation's total social security expenditure including local government spending increased substantially from about 1 percent of GDP in 1962 to 3.7 percent in 1994 (see Table II-6), Korea still devotes a much smaller share of its national income to social security in contrast to most advanced industrial countries, even considering the difference in income levels. Japan, for instance, was spending 9.4 percent of GDP on social security in 1978 when her per capita income was at roughly the same level of Korea's $8,500 in 1994 (Noh and Kim, 1995). Thus, Korea's GDP share of social security spending at 3.7 percent shows a considerable gap in comparison with not only Japan, but also with other OECD member countries.

In order to better evaluate the economic burden of social security, it is also necessary to take into account the methods of financing the schemes. In 1994, Korean workers and employers financed 51 percent of the total cost of various social security programs, while the government sources accounted for about

one-third of the total cost. The rest represented interest income from reserve funds and other sources (Noh and Kim, 1995).

Table Ⅱ-6. Trends in Social Security Expenditure, 1962~1994

Year	Total Amount (billion won)	Percent of Total			Total as % of GDP
		Social Insurance	Public Assistance	Welfare Services	
1962	3.7	16.2	81.1	2.7	1.1
1972	39.5	54.3	42.3	3.3	0.9
1982	1,069.8	67.3	26.9	5.8	2.0
1990	5,476.3	73.0	19.8	7.3	3.1
1991	7,010.6	66.7	19.7	13.6	3.2
1992	8,223.1	71.5	17.8	10.7	3.4
1993	9,515.2	73.2	16.0	10.8	3.6
1994	11,054.8	74.1	15.6	10.3	3.7

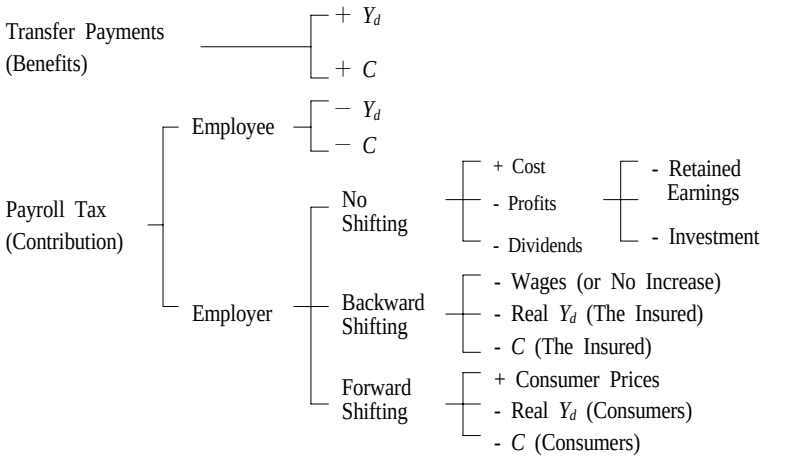
Source: In Chul Noh and Soo Bong Kim, *International Comparison and Future Prospects of Social Security Financing*, Korea Institute for Health and Social Affairs, 1995.

Furthermore, it is important to determine the effective influence which the withdrawals from the resources of the various economic agents in the private sector have on the consumption, savings, and investment potentialities. The contributions of the insured persons, who are the beneficiaries of the social security programs, have little influence. While the social security contributions can change, to some extent, the pattern of consumption of the limited group of employees, they make no significant impact on the volume of consumption. It is, however, essential to consider the net effect of contributions and benefits when discussing the effect of employees' contributions on consumption. The workers' household budget which bears a relatively small amount of contributions normally is compensated by a substantial amount of benefits when contingencies occur and wages fail (International Labour Office, 1984).

The incidence of employers' contributions, which accounted

for about 19 percent of total social security cost in 1994, is more difficult to evaluate. It is generally assumed that these contributions are partly shifted backward to employees and also shifted forward to consumers. The workers would eventually bear the burden of a large part of employers' contributions if the level of social security costs is taken fully into account in the wage rates. If this conjecture is well founded, it is the employees' possible consumption that is reduced (see Chart 1).

Chart 1. Macroeconomic Effects of the Pension Scheme, An Illustration



Note: Y_d : disposable income; + : positive effect;
C : consumption expenditures; − : negative effect

Other than these employee-employer contributions, there is state participation in financing social security schemes. As employers, the government sector as a whole pays a substantial amount of contributions. In addition, public subsidies are granted various social security schemes. In 1994 the total state contribution to social security, including subsidies, accounted for 33 percent of the total cost. It is the total amounts thus withdrawn from the

government sector's resources that can put pressure on the public purse by reducing the possibilities of priority public investments such as social overhead capital, environmental protection, and technological advancement.

Despite the limited scale of state participation in the financing of Korean social security schemes, the overall increase in the share of employee-employer contribution since their institution is considerable. Nevertheless, the transfers for the benefit of social security are still very limited.

Besides the financing issues, the lack of a comprehensive social security system in Korea reflects an affirmative Confucian tradition, of which the son is responsible for his parents' welfare. While the aged have traditionally been supported and cared for by the oldest son under the extended family system in Korea, this system is rapidly being replaced by the nuclear family in urban areas. With growing urbanization and industrialization, the modern family in Korea tends to be a small parent-child family, with much weaker ties to grandparents and other relatives than in traditional rural society. As modern medicine continues to reduce the impact of disease upon the life span, the increase in longevity presents social and economic problems in Korea. The rapid industrialization and urbanization which are taking place in Korea are also creating greater accident and sickness hazards in the nation.

What all this may portend is the establishment of a more flexible and need-oriented social security programs which are responsive to changing needs of the society in the twenty-first century. A given change in the system is desirable, however, only if it furthers achievement of the basic objectives of social security and if it does not obstruct the achievement of other national objectives.

The social security program aims at two related objectives. One is to guarantee minimum income support against the stoppage or a substantial reduction of earning power (welfare objective). Another one is to help moderate the decline in living standards

by replacing certain portion of earnings, when the earnings of the family head cease (earnings replacement objective) (Pechman, et al, 1968). The case for a social security program intended to achieve these goals rests on the observed inability of most people to make adequate financial provision for various contingencies.

In a society where economic decisions are freely made, every individual person constantly faces choices about how to spend his income for current purposes, and how much to set aside for retirement when earned income stops or declines sharply. In the absence of a compulsory public program, each person makes these decisions based on his or her own tastes and habits. It is generally accepted that voluntary savings can not yield the low-income worker an income sufficient for retirement. These are some of the reasons why the principle of 'the freedom of individual choice' should be modified in the case of provision for retirement and against other risks.

Thus, the case for improving the social security system rests on solid ground. Given widely accepted humanitarian values (or welfare objective) and a few fundamental facts about the economic behavior of an individual person, the government of Korea should seek to strengthen its social security schemes to protect individuals from severe declines in living standards caused by various social risks.

3. The Demographic Picture: Implications for Social Security

Social security as a strategic element of socio-economic policy cannot be considered without reference to the economic, social, and demographic background. This section is intended both to provide a basis for subsequent analysis and discussion of how demographic and social characteristics of Korea might affect the future development of social security and also to serve as a guide for streamlining social security programs.

As previously discussed, Korea's growth and change can be illustrated from a variety of economic and social indicators. Among the most important are perhaps those relating to demographic change. In 1995, when the last complete census was taken, the total population of Korea stood at 45 million[1]. Roughly 23 percent of this total lived in the capital city, Seoul, and another 8.5 percent in Pusan, the second largest city in the nation. Despite the decline in the number of Seoul residents, the metropolitan area including Seoul, Inchon, and Kyonggi-do province, accommodates over 20 million persons, comprising 45 percent of the nation's total population.

Kyonggi-do Province, which surrounds the capital city of Seoul, is the most heavily populated province, with over 17 percent of the national population. Other heavily populated provinces are Kyongnam-do (8.6 percent), Kyongbuk-do (6.0 percent), and Chonam-do (4.6 percent). Besides Seoul and Pusan, other heavily populated cities are Taegu (5.5 percent), and Inchon (5.2 percent). The highest population densities per square kilometer in 1995 were 16,864 persons in Seoul and 5,084 persons in Pusan, compared with only 448 persons for the nation as a whole (National Statistical Office, 1996).

Although the total population of Korea increased 1.8-fold from 25.0 million in 1960 to 45.1 million in 1995, the rate of growth has been on the steady decline over the last thirty-five years, thanks to the successful family planning program. As is evident from Table II-7, the annual growth rate of population dropped sharply from 2.8 percent during the first half of 1960s to l.4 percent in the 1980～85 and to less than one percent by 1995. If this trend continues, the growth rate of population is expected to reach as low as 0.4 percent in 2010 and will approach near zero rate in 2020. The total population is projected to increase from 45.1 million in 1995 to 50.6 million in 2010

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1) Estimated mid-year population for 1995 was 45,093,000, compared with census enumeration of 44,606,000 as of November 1, 1995.

and to 52.3 million in 2020.

Table Ⅱ-7. Growth Rates of Population, 1960~2020

Year	Population(1,000 persons)	Growth Rate[1](%)
1960	25,012	2.79
1970	32,241	1.82
1980	38,124	1.37
1985	40,806	0.99
1990	42,869	1.02
1995	45,093	0.95
2000	47,275	0.77
2005	49,123	0.60
2010	50,618	0.42
2020	52,358	0.13

Note : 1) Data for 1960 through 1995 refer to five-year average annual growth rates. Growth rate of 2.79% for 1960, for instance, is an average of 1960~65.

Source: National Statistical Office, *Future Population Estimates*, 1997.

Another important characteristic of the Korea's population structure is the widening gender gap, boys continuing to outnumber girls, particularly in the lower age groups. The male-to-female ratio at birth was 113.4 to 100 in 1995, compared with 107.2 to 100 in 1981. Among children aged below five-year-old, the gap was wider at 114.6 males to 100 females in 1995 (National Statistical Office, 1997). If this gender gap trend continues, about twelve out of every 100 men will remain single in 2020 when the present young boys attain the marriage age. The one major cause of this serious demographic trend is the deep-rooted, long-held preference of Koreans for sons over daughters. This originates from the Confucian tradition that one should have a son to succeed the father as head of the family. The preference for sons over daughters is unlikely to disappear overnight, unless the government makes a concerted effort to abstain from the discrimination against women by reforming the existing laws and

social structures.

Table Ⅱ-8. Population by Major Age Groups, 1960~2020

(Unit: 1,000 persons)

Age Group	1960	1970	1980	1985	1990	1995	2000	2005	2010	2020
Total	25,012	32,241	38,124	40,806	42,869	45,093	47,275	49,123	50,618	52,358
0~14	10,588	13,710	12,951	12,305	10,973	10,537	10,233	10,421	10,080	9,013
15~64	13,698	17,540	23,717	26,759	29,701	31,899	33,671	34,449	35,506	36,446
65+	726	991	1,456	1,742	2,195	2,657	3,371	4,253	5,032	6,899
Percent Distribution	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0~14	42.3	42.5	34.0	30.1	25.6	23.4	21.7	21.2	19.9	17.2
15~64	54.8	54.4	62.2	65.6	69.3	70.7	71.2	70.1	70.1	69.6
65+	2.9	3.1	3.8	4.3	5.1	5.9	7.1	8.7	10.0	13.2

Source: National Statistical Office, *Future Population Estimates*, 1997.

The population of Korea includes a high proportion of young persons. The population under age 15 numbered 10.5 million in 1995, comprising 23.4 percent of the nation's total population. The young aged population of the country, however, has been decreasing steadily since 1970. In that year, persons in the same age group numbered 13.7 million, representing 42.5 percent of the total population (see Table II-8). Young-age population under age 15 will continue to decline, reaching 9 million in the year 2020 or 17.2 percent of the total population in that year. The fact that a relatively large proportion of the Korean population is comprised of young aged groups (23.4 percent) is evident from the comparison of age-distribution data for Japan (16.3 percent), the United States (22 percent), and Sweden (19 percent), as shown in Table II-9.

The proportion of older people in Korea is relatively small, representing less than 6 percent of the total population, but the aging of the Korean population is progressing at a very rapid rate. Between 1960 and l995, the number of aged people (65 years and over) jumped 3.7 times to 2.66 million. The number,

however, will top 3.4 million (7.1 percent of the total population) in the year 2000 and surpass 5.0 million (10.0 percent of the total) in 2010. The National Statistical Office estimates the population of those aged 65 and over will reach 6.9 million in the year 2020, comprising 13.2 percent of the total population. Young aged population of the nation, on the other hand, will account for smaller and smaller percentages of the population.

Table Ⅱ-9. Age Distribution of Population: International Comparison, 1995

Age Group	Korea	Japan	United States	Sweden
Under 15 Years	23.4	16.3	22.0	19.0
15～64 Years	70.7	69.6	65.4	63.7
65 Years and Over	5.9	14.1	12.6	17.3
Total Population	100.0	100.0	100.0	100.0

Source: National Statistical Office, *Future Population Estimates,* January 9, 1997.

As mortality rates continue to decline over a period of time, the probability of surviving to retirement age and beyond increases. Table II-10 compares life expectancy at birth in Korea and Japan. The average life expectancy of the Korean people will rise from 73.5 years in 1995 to 77 years in 2010. The life expectancy for males in Korea is currently about 7 years lower than in Japan. For females, the differential is 5.3 years. The same table also indicates how average life expectancies at birth have increased over time. Between 1960 and 1995, life expectancy of Koreans has increased 18.5 years for male and 23.7 years for female. Most of this increase in life expectancy is the result of more youth remain alive and the aged living longer. This is mainly attributed to improved health conditions and living standards.

Table Ⅱ-10. Life Expectancy at Birth for Korea and Japan: 1960～2020

Year	Korea			Japan		
	Average	Male	Female	Average	Male	Female
1960	52.4	51.1	53.7	67.9	65.6	70.4
1980	65.7	62.7	69.1	76.2	73.5	79.0
1995	73.5	69.6	77.4	79.7	76.6	82.7
2010	77.0	73.3	80.7	80.9	77.8	83.9

Source: National Statistical Office, *Future Population Estimates*, January 9, 1997.

Combined with the aging population, the family size is shrinking inexorably. The number of households increased from 6.65 million in 1975 to 12.96 million in 1995. In each household, 3.3 persons lived together in 1995, compared with 5.0 persons in 1975. This decline in the size of families can be attributed to the drop in the average number of births per women. Along with the decline in the family size, one-person households rose sharply from 4.2 percent of the total households in 1975 to 12.7 percent in 1995 (see Table II-11). This largely reflects substantial increase in one-person households among elderly people in rural areas and also increase in young persons who live alone in urban areas (Chung and Suh, 1997).

Rapid trend toward the nuclear family is also apparent. The number of one-generation households, where parents and children live separately, totaled 1.68 million in 1995, representing 15.1 percent of all households. This is in sharp contrast to only 7.0 percent in l975. Of this total of 1.68 million in 1995, about one-fourth is headed by elderly people aged 65 and above. The two-generation households, where parents and children live together under a single roof, represented 73.1 percent of the total, while three-generation households (families where married couples live together with their children and parents) comprised of only 11.5 percent of the total household. In 1975, this proportion was

20.1 percent.

Table Ⅱ-11. Changes in the Household Structure, 1975 and 1995

	1975	1995
Total Number of Households (1,000)	6,367	11,131
Household Size (Person)[1)]	5.0	3.3
One-Person Households (Percent)	4.2	12.7
Households by Generations (Percent)		
One-Generation	7.0	15.1
Two-Generation	71.9	73.1
Three-Generation	20.1	11.5
Nuclear Families (Percent)	70.7	79.9

Note : 1) Persons Per Household
Source: National Statistical Office, *Social Indicators in Korea,* December 1996.

About 80 percent of total households is represented by nuclear families, currently the most common family type in Korea. This figure compares with 71 percent in 1975 (see Table II-11). This trend partly reflects the waning influence of the Confucianism which has dominated the Korean society for so long. The sense of solidarity among people is also disappearing. The elderly have traditionally been cared for by their families, but with the gradual erosion of Confucian value and of the extended family system, an increasing number of them are living and dying alone. This phenomenon has significant implications for social security.

4. The Historical Evolution of Social Security

During the last three decades, the government of Korea had been engaged in evolving policies and programs for the development of social security appropriate to the conditions prevailing in the country. A number of significant social security

programs were launched in the country over the last thirty years; they grew steadily both in terms of scope and coverage. Korea's social security system was, however, established initially with a very limited public pension program instead of a comprehensive system.

The order and timing for establishing various social security programs in different countries indicates that different institutional and socioeconomic factors affect the pattern of social security development.

Germany, the first country to establish a social insurance program, for instance, enacted health insurance in 1883, old-age and disability insurance in 1889, survivors' insurance in 1911, and unemployment insurance in 1927. Great Britain enacted health, unemployment, and disability insurance in 1911, old-age and survivors' insurance in 1925, and substituted a national medical care service for its health insurance program in 1946. Mexico, on the other hand, enacted a comprehensive social insurance program in 1942 covering old-age, survivors', and disability, health insurance, and workmens' compensation. New Zealand also enacted a comprehensive social security plan in 1938.

The beginning of the fragmented social security programs in Korea can be traced back to the early 1960s, with the adoption of the civil servants pension law in 1960 followed by the enactment of the military pension law in 1963. Professors and teachers in private educational institutions were also provided with public pension benefits beginning in 1975. Industrial accidents insurance program was introduced in 1964. The national medical insurance program, which is the principal social insurance program in Korea, was inaugurated in 1977. It was not until 1988 that Korea launched the national pension insurance scheme for workers in the private industrial and commercial sectors. Finally, Korea introduced an unemployment insurance program in 1995. Thus, Korea now has all four major social insurance schemes in operation. It may be noted that to certain extent Korea's social security system bears the mark of the traditional

Bismarckian reflex.

One of the important social development policy initiatives taken by the government in the early 1970s was the enactment of the National Welfare Pension Law on December 1, 1973, which was originally scheduled to become effective January 1, 1974. However, the Presidential Emergency Decree of January 14, l974, promulgated in the aftermath of worldwide oil crisis, postponed the implementation of the newly enacted public pension program, because it was feared that financing of the pension scheme might have adverse effects on the economy.

The purpose of this program, as stipulated in the law, was "to contribute to the promotion of the secure life and welfare of the people" by providing the protection to workers and their families against loss or stoppage of earnings from old-age, disability and death (Park, 1975). The National Welfare Pension Law thereby represented the first expression of a changed direction in social development policy and was a promising first step toward the development of a manageable social security system in Korea. It was very unfortunate that the enforcement of this law had to be postponed several occasions until it was finally replaced by the new National Pension Law on December 31, l986 and became effective on January 1, 1988.

In addition to these social insurance programs, Korea's social security system also includes a program of public assistance provided under the Livelihood Protection Law of 1961 and social welfare services.

Under the umbrella of social security system, we now have a program of old-age, survivors' and disability insurance, industrial accidents insurance, medical insurance, unemployment insurance, public assistance for needy families, as well as government-supported welfare services. It can now be said unequivocally that Korea's system of nationwide social insurance and government grants for public assistance and social services has become a permanent part of the basic fabric of our social security institution.

Major responsibility for administration of the social security

system in Korea is primarily under the jurisdiction of the Ministry of Health and Welfare. Medical insurance program and the national pension scheme are administered by semiautonomous institutions such as the National Federation of Medical Insurance (NFMI), Korea Medical Insurance Corporation (KMIC), and National Pension Corporation. These organizations are, however, subject to general supervision by the ministry, but otherwise are largely self-governing. Industrial accidents insurance scheme is run by the Korea Labor Welfare Corporation under the general supervision of the Ministry of Labor, but the ministry is directly responsible for administration of the unemployment insurance program. In addition, Ministry of National Defense (military personnel pension), Ministry of Government Administration (civil servants pension), and Ministry of Education(private school teachers pension) assume legal responsibility in carrying out respective programs under their jurisdiction (see Table II-12).

Table Ⅱ-12. Social Security Programs and Institutions, 1995

Program	Year Started	Persons Covered (1,000)	Expenditure (billion won)	Administrative Organization
Social Insurance				
Medical	1977	44,016	3,494	NFMI and KMIC[1)]
Pension				
• Civil Service	1960	956	1,935	Civil Servants Pension Corp.
• Military	1963	152	765	Ministry of National Defense
• Private Schools	1975	181	330	Private School Teachers Pension Corp.
• National Pension	1988	7,257	555	National Pension Corp.
Industrial Accidents	1964	7,908	1,109	Korea Labor Welfare Corp.
Unemployment	1995	4,164	-	Ministry of Labor
Public Assistance			1,772	Ministry of Health and Welfare
Livelihood Protection	1961	1,755	-	
Medical Assistance	1977	1,740	-	
Welfare Services	1970	77	1,145	Ministry of Health and Welfare

Note : 1) National Federation of Medical Insurance (NFMI) for industry employees and self-employed workers; and Korea Medical Insurance Corporation (KMIC) for civil servants and private school teachers.

Source: Various annual reports of relevant organizations.

Ⅲ. Development of Old-Age Cash Benefits: National Pension Insurance

1. Introduction

When certain contingencies occur with an individual, such as sharp drops in income due to old-age, disability or death, the government intervenes with solutions to prevent such risks. The social pension scheme is an example of the government's effort to prevent social risks and threat to the living standards of the people.

Currently, there are four public pension programs effective in Korea: Civil Servants Pension (government employees), Military Personnel Pension, Private School Teachers Pension (including administrative workers), and the National Pension System (workers in the private industrial and commercial sector). The first three are occupation-related old-age cash benefit programs provided according to length of employment. The last scheme, on the other hand, is designed for all private sector workers between the ages of 18 and 60, and residing in Korea.

A total of 8.55 million persons are covered by one of these four pension schemes and a little over 187 thousand persons have actually received cash benefits at the end of 1995. The total expenditure for the four public pension programs, including benefits and administrative costs, amounted to 1,168 billion won in 1994, comprising 0.4 percent of the GDP. In terms of "coverage" or persons protected, the National Pension System (NPS) is by far

the largest single old-age cash benefit program in Korea (see Table III-1).

The Civil Servants Pension was introduced as the first Korean public pension scheme in 1960 covering all government employees including local officials, judges, attorneys, public school teachers (including office workers), and policemen. Approximately one million civil servants are currently covered and 56,343 of them are pension recipients.

The original legislation in 1960 provided cash payments to *civil servants*, replacing only a portion of his/her loss in income due to long-term contingencies such as old age and death. Later, subsequent revisions gradually expanded the scope of program, providing medical and cash benefits for short-term contingencies such as sickness and maternity. As the result, five different types of benefits are now provided: old-age, invalidity, survivor, lump-sum refund, and short-term benefits.

The benefits are financed by salary contributions from both the government and employees, each with contribution rate of 6.5 percent. Employees are required to have had at least twenty years of service. The amount of benefits vary according to his/her salary and length of service. Its annual rate is 50 percent of the final year's salary plus 2 percent for each additional year of service after 20 years to a maximum of 70 percent of annual salary (see Table III-1). In case of the death of an employee with 20 or more years of service, a survivor pension consisting of 50 percent of the basic pension that the deceased was formerly eligible to receive is paid. The recipient of this survivor pension is the widow of and if there is no eligible widow the pension is given to any surviving child under age 18.

The *military personnel* pension was originally implemented as part of the Civil Servants Pension program. It later became a separate scheme under the new Military Personnel Pension Law of 1963. It covers military officers and non-commissioned officers with longer-term services. Although it is a separate program, the basic features of the newer scheme are practically identical to the

Table Ⅲ-1. Old-Age Pension Schemes in Korea, as of December 31, 1995

	National Pension	Civil Servants Pension	Military Personnel Pension	Private School Teachers Pension
Year introduced	1988	1960	1963	1973
Coverage	(compulsory) workplaces with 5 or more workers, farmers and fishermen; (voluntary) self-employed	Civil servants including local officials	Officers and non-commissioned officers with long-term service	Private school teachers and employees
Number of persons covered (,000)	7,257	958	151	181
Number of beneficiaries (persons)	79,259	56,343	47,610	3,950
Percent of beneficiaries (%)	1.09	58.8	31.5	21.8
Benefit formula[1]	0.2(A+0.75B)(1+0.05n)×12	0.5×Y×(1+0.04n)×12	0.5×Y×(1+0.04n)×12	0.5×Y×(1+0.04n)×12
Contribution rate (%)	employer 3, employee 3 (9), reserve[2] 3	government 6.5, participant 6.5 (13)	government 6.5, participant 6.5 (13)	government 2.5, participant 6.5, Institution 4.0 (13)
Benefit/contribution ratio (%)	18.8	88.2	297.4	78.2
Amount of reserve fund (billion won)	18,159.7	5,149.5	390.5	2,390.5

Notes : 1) A : the average monthly remuneration of all covered persons in the year immediately preceding the payment of pension.
B : the average standard monthly compensation during the entire period of coverage.
n : the number of years covered beyond 20 years.
Y : the final monthly earnings, n: number of additional years exceeding 20 years.
2) the severance payment reserve, for which the employer is required by the Labor Standards Act to set aside at least 8.3 percent of the payroll.

Sources: Various annual reports of the relevant ministries and pension corporations.

Civil Servants Pension program, with a few minor exceptions (see Table III-I).

One of the problematic aspects of the Military Personnel Pension scheme is the ineffective financing mechanism which suffers large and chronic deficits. The problem has persisted since 1972 and pension financing is entirely subsidized by annual financial transfers from the general government budget. The long-term deficit is primarily the cause of early retirement of military officers and irrational benefit formula that accounts combat service period as triple the peace-time service. Another reason for large financial deficit problems are that the number of active military personnel who pay contributions remains relatively stable, that of retired beneficiaries continue to rise at a rapid rate.

Unsound financial operations of the military personnel pension are indicated by the benefit spending/contribution revenues ratio of 297.4 and by the beneficiaries/total coverage ratio of 29.4 (see Table III-1).

On December 20, l973 a law was enacted to provide *private school teachers* (including professors and administrative workers) with pension or lump-sum benefits to replace the income loss caused by long-term contingencies such as old age, disability, and death. It also provides medical benefits and cash payments for short-term contingencies such as sickness and maternity. At the end of 1995, a total of 181,000 teachers were covered by this program and about four thousand retired teachers were listed as pension recipients.

The nature and scope of benefits provided under this law are very similar to those provided under the Civil Servants Pension program. Unlike the government employee pension scheme, this pension program is financed by three sources -- 6.5 percent of salaries paid by the teacher, 4.0 percent of covered payroll paid by the institution, and 2.5 percent of covered payroll paid by the government.

Of the three public pension programs discussed above, the Private School Teachers Pension and the Civil Servants Pension

both cover professional groups of people with similar risks. Suggestions of integrating the two pension programs with the National Pension Plan have been addressed (Min and Yoo, 1991). Military pension, on the other hand, remains a separate program due to higher risks of disability and death.

The National Pension System (NPS) was enacted into law on December 31, 1986 and effective, a year later, on January 1, l988. The purpose of this scheme, as stated in the law, is "to provide pension benefits in contingency of old-age, disability or death of a worker to secure living stability and to promote the welfare of the nation" (*National Pension Act* of 1986). In framing the specific features of the pension scheme for old-age, disability and death, the government realized that a broad social security system is essential in providing economic security for workers in the private sector. The National Pension Act, thereby, represents a promising first step towards the development of a manageable social security system in Korea.

Similar to social security programs in most countries, the National Pension System is effective according to detailed and complex statutory provisions and administrative regulations. The following sections will present a detailed analysis and discussion of NPS concerning coverage, criteria for eligibility, types and amount of benefits, and financing provisions of the NPS.

2. Coverage

"Coverage" refers to the persons protected. The primary goal of the social security pension program is to attain coverage of all persons - regardless of income level, occupation, citizenship, or age. Universal coverage rests upon broad principles of social justice, however, practical considerations follow with certain limitations. Korea is by no means an exception. Overall, these restrictions are imposed by administrative necessity. They are based on factors such as occupation, size of firm, permanency of

employment, and geographical location.

The criteria for eligibility first requires insured status. This is achieved by employment, as specified by the National Pension Act, and by regular payments of salary contributions for a specified number of years. Government employees, military personnel and private school teachers who are covered by their respective special pension programs are excluded from the National Pension System. Currently, employees of firms with five workers or more are compulsorily covered by the NPS as well as the self-employed in rural areas including farmers. Self-employed workers in urban areas may be insured voluntarily.

As shown in Table III-2, the number of persons covered by NPS increased from 4.4 million in 1988 and nearly 7.3 million in 1995, the initial year of implementation. These figures represent an overall increase of 2.8 million persons or 64 percent during the seven-year period. As percentage of total employment, the total pension insurance coverage rose from 26.3 percent in 1988 to 35.6 percent in 1995. Despite this increase, the scope of coverage by NPS is still considerably limited, providing protection to little over one-third of total employed persons and only 16 percent of the nation's entire population. In contrast, Japan's public pension insurance program (including both national pension and welfare pension), which is equivalent to Korea's NPS, provides pension protection to 27 percent of the total population.[2)]

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2) The number of persons covered by both national and welfare pension programs amounted to 33.4 million in 1993. See Japan National Federation of Health Insurance Societies(1995).

Table Ⅲ-2. Growth of Persons Covered by NPS, 1989~1995

Year	Total Coverage(1,000)	Percent of Total Population	Percent of Total Employment
1988	4,432.7	10.6	26.3
1989	4,520.9	10.7	25.7
1990	4,651.7	10.9	25.7
1991	4,768.5	11.0	25.6
1992	5,021.2	11.5	26.5
1993	5,159.9	11.7	26.8
1994	5,444.8	12.2	27.4
1995	7,257.4	16.1	35.6

Sources: National Pension Corporation, *National Pension Statistical Yearbook; 1995,* September 1996; National Statistical Office, *Social Indicators in Korea: 1996,* 1996.

Voluntarily insured persons comprised less than one percent of total persons covered in Korea as of December 31, 1995. A large majority (76 percent) of total coverage is represented by compulsorily covered employees in firms and other establishments. Mandatorily covered self-employed workers in the rural sector, on the other hand, comprised nearly 23 percent of total covered persons (see Table III-3).

Table Ⅲ-3. Covered Persons in NPS by Type of Coverage, 1995

Coverage	Type	Conditions	Persons(,000)
Compulsory	Employed Workers	Establishments with 5 or more workers	5,542(76.4)
	Self-employed Workers	Rural area self-employed, farmers and fishermen	1,651(22.7)
Voluntary	Voluntary Self-employed	Urban area self-employed	48.7(0.7)
	Continuous Coverage	Persons with less than 20 years of coverage, aged between 60~65	15.7(0.2)

Source: National Pension Corporation, *National Pension Statistical Yearbook 1995,* 1996.

Groups of workers such as casual workers, daily laborers, and those considered difficult to administer by NPS, such as farm workers and the self-employed, were initially excluded from the coverage. Wage earners and salary workers were predominant during the initial stages of national pension development in Korea. Thus, Korea, like many other countries in the world, gradually extended coverage over the years.

At the start of implementing NPS in 1988, the compulsory coverage was limited to employees in firms with ten or more workers. In January 1992, the limit was extended to employees in firms with five or more workers and in July 1995, it further extended to workers in rural areas, farmers, and fishermen. The National Pension Act still provides elective coverage for self-employed in urban areas, such as store owners, lawyers, actors, dentists, and physicians and the temporary and short-term workers are excluded from compulsory coverage.

Any attempt to initially extend coverage to all employers in the private sector would involve great difficulties and high costs of enforcing compliance with numerous small establishments. The initial exclusion of smaller employers is also justified in their own interest -- not necessarily due to saving in contributions, but due to the lack of appropriate accounting systems and trained personnel in smaller firms. Initial limitations of coverage and subsequent broadening is a common practice throughout the world.

National pension insurance coverage of temporary workers raises a problem in Korea where the majority of wage earners are employed on a casual rather than a regular basis. There were 1.8 million daily workers (nearly 9 percent of total employed workers) in 1995. In addition, 11 million regular employees were considered temporary workers (National Statistical Office, 1996).

From the social point of view, there is no valid reason for exclusion of such workers from the scope of the national pension program. To allow exclusion may provide an added impetus for employers to engage in biased practice of formally hiring persons for only a short period, but with the intention of re-hiring them

immediately. Nevertheless, for various technical and administrative reasons, casual workers (temporary workers and daily laborers) who were fully committed to the labor force are currently excluded from the coverage.

Precautions must be taken since long delays in the process of incorporating such group of workers may create a need for (unwanted) special legislation as perceived in the case of Japan's "Daily Laborers' Health Insurance" and also increase the government's welfare load.

As previously mentioned, an amendment to the Presidential Decree on August 10, 1991 was effective on January 1, 1992 and extended the compulsory coverage of firms with ten or more workers to firms with five or more employees. This adjustment, however, had little effect on increasing the coverage rate. However, in 1995 the measures to expand the compulsory coverage to farmers, fishermen and other self-employed workers in rural areas had a significant impact on the scope of coverage. The result of this was an increase in coverage rate of total employed persons covered 27.4 percent in 1994 to 35.6 percent in 1995 (see Table III-2).

The number of farmers and fishermen, who joined NPS since the extension of compulsory coverage in 1995, declined from roughly 1.27 million in August 1995 to 1.06 million in July 1996, and the number of self-employed in rural areas, decreased from 422 thousand to 372 thousand over the same period (Unpublished data from National Pension Corporation quoted in "Seminar on the Evaluation of Extension of National Pension Insurance Coverage to the Rural Area," September 23, 1996).

The extension of conventional social security pension program to rural areas is a challenging task for social security policy makers and planners. Possible extension of pension coverage to the rural community will require a new program of a different setting and the needs will widely differ with those of urban industrial wage earners. Solutions will have to be found in developing new forms of economic support other than individual

cash benefits. In support of this view, the International Labor Offices has suggested crop insurance, natural disaster insurance, assisted marketing and better health services (International Labor Office, 1984).

3. Qualifying Conditions

Benefits under NPS provide protection against the risk of income loss from old-age, disability, or death. A fundamental element of the system is that employees have the right to benefits according to his/her length of work and salary contributions. The qualifying conditions to earn that right are specified by the National Pension Act and the Implementation Decree.

The conditions for the right to benefits are: first, that the contingency has occurred along with a cessation or reduction of earnings; and, second, that the participant possesses the particular status prescribed by the pension scheme. The major requirements for receiving old-age benefits are a completion of a specified period of contribution and attainment of a specified age. Additional requirement is retirement from covered employment.

The qualifying period of contribution or employment is an essential feature of the pension scheme. Where disability and death can occur at any age, even in youth, the contingency of old-age will only occur toward the end of one's active life. Hence, for old-age the qualifying period is much longer than for the first two contingencies. Pension benefits are paid only to persons who acquire insured status which in turn depends on the number of years of coverage and salary contributions. Under the National Pension System, the insured status, which entitles a worker to full old-age benefits, can be achieved by sustaining at least 20 years of coverage and contribution. Thus, a worker in covered employment entering the labor force at age 22 will achieve fully insured status at about age 41.

There are, however, considerable variations among countries in the period of coverage and salary contribution. As presented in Table III-4, it ranges from a low of 10 years in China and the Philippines (120 months) to a high of 35 years in Germany.

The basic requirements for receiving a disability pension are loss of productive capacity and a minimum period of contribution, with a one-year qualifying period. Where disability is involved, age does not become a factor; the main factor lies on the degree of disability. The Enforcement Decree of the National Pension Act clearly distinguishes the degree of disability in four different classes.

Eligibility for survivors pension require that the deceased person be covered either by pension program before his/her death or have completed the qualified minimum contribution period. The qualification period is equivalent to that of the disability pension. In addition, other conditions such as age and retirement assessment evaluation determine eligibility.

For full old-age pension benefits, a worker must be sixty, which is comparatively lower than most advanced industrial countries. It is notable in the figures of Table III-4 that a majority of pension schemes in industrialized countries is concentrated around those aged 65 or more. Old-age pension benefits generally become payable between the ages of 60 and 65 throughout the world. In the 1980s, a number of countries increased their age limit due to severe budgetary constraints.

In fixing the standard eligible age, major considerations must be given to the gradual decline of efficiency in work performance and the growing frequency of invalidity that accompany with increasing age. Thus, from the standpoint of life expectancy, which is ultimately the controlling factor, it is appropriate to reassess whether eligibility for old-age pension at the age 60 under the National Pension System is reasonable and wise.

Table III-4. Qualifying Conditions and Contribution Rates for Pension Programs, Selected Countries

	Qualifying Conditions			Contribution Rates		
	Retirement Age		Period of Coverage & Contributions	Insured Person	Employer	Gov't
	Male	Female				
Korea	60	60	20 years	2.0[1]	2.0[1]	-[2]
Japan	60(65)[3]	58	25 years	8.25	8.25	-[2]
U.S.A.	65[4]	65	40 quarters	6.2	6.2	-[5]
U.K.	65	60	-[6]	12.0	10.2	-
Germany	63	63	35 years	9.3	9.3	-[7]
France	65	65	150 quarters	8.05	8.2	-
Philippines	60	60	120 months	3.33	4.67	[7]
Taiwan	60	55	25 years	1.3	4.55	0.65
Mexico	65	65	500 weeks	2.075	5.810	0.415
Spain	65	65	15 years	4.7	23.6	-[7]
Switzerland	65	62	-[8]	4.9	4.9	-[7]
Chile	65	60	20 years	13.0	-	-[7]
Argentina	62	57	30 years	11.0	16.0	-[7]
China	60	55	10 years	3.0～5.0	15.0～20.0	-[7]

Note : 1) Beginning in 1998, the rate will rise to 3% each. In addition, 3% payroll is contributed from the severance payment reserve fund. Thus, the total contribution rate will be 9%.
2) Cost of administration.
3) Age 60 for employees' pension insurance and age 65 for the national pension program.
4) Gradually rising to 67 years over the 2000～27 period.
5) Cost of special old-age benefits for persons aged 72 before 1968.
6) Coverage required for 9/10ths of the years in working life(generally 44 years for women and 49 years for men).
7) Government subsidies.
8) All years from age 21.

Source: U.S. Social Security Administration, *Social Security Programs Throughout the World*, Research Report No. 64, July 1995.

The average life expectancy of the Korean people, as presented in Table II-10, rose sharply from 52.4 years in 1960 to 73.5 years in 1995, and is expected to increase to 77.0 years by 2010.

Experiences in many countries reveal that once the pensionable age is fixed, it is extremely difficult to increase the age, whereas it can be lowered without must resistance. Recently, however, Japan adopted a reform measure for the employees' pension program which would gradually increase normal pensionable age for the flat-rate basic benefits from 60 to 65 years over the 2001 and 2013 period (Takayama, 1995). Currently, pensionable age under the Japan's national pension insurance scheme is 65. Under the OASDI program in the United States, the pensionable age is also scheduled to gradually rise from ages 65 to 67 over the 2000～27 period.

Closely related to the question of pensionable age is whether the person who continues working, after reaching pensionable age, should be paid pension. The NPS imposes a retirement test, meaning that full pension will be awarded with full retirement. Under the retirement test, the pension is partially reduced, ranging from 50 to 90 percent of the basic pension, between the ages of 60 to 64 and continue working. The retirement test, however, is eliminated entirely for workers who are 65 and over. The retirement test supports a basic concept of the social insurance pension program that the risks insured is not just old-age but loss of earnings due to old-age.

With scarce resources, payment of a full pension to persons who continue working, and thus earn their living, would ignore the more urgent priorities of persons most in need of it because of lack of earnings. The National Pension System may not be able to afford the cost of paying pensions to people still in the labor force. Thus, both cost and social considerations argue for some sort of a retirement test. Examination of foreign practices indicates that the NPS with partial limitations on retirement is more liberal than those in most other developing countries. By and large, the developing countries with relatively new pension programs usually require total withdrawal from covered employment.

4. Source of Fund

The National Pension System is a mandatory provision for economic contingencies, financed by contributions on a *quid pro quo* basis. It is financed by an extra fund raised by payroll contributions on covered wages and salaries. As provided in the present law, employees are required to pay a 3-percent tax (or contribution) from their monthly income up to a maximum amount of 3,600,000 *won*. Each employer, in turn, pays contributions at the rate of 3-percent of the first 3,600,000 *won* paid monthly to each of his employees. However, NPS uses "standard" income classes rather than actual incomes. Incomes are arranged in 45 classes by the order of size using medium of each class to compute the contribution amount. In addition, a 3-percent of the payroll is transferred from the severance payment reserve fund as contributions for financing the NPS program.[3)]

On the other hand, contribution rate is 3 percent for self-employed workers in the rural areas including farmers and fishermen (see Table III-5). Self-employed workers engaged in agriculture and fisheries are, however, provided with a government subsidized contribution of 2,200 *won* per person each month. Furthermore, the administrative expenses of the NPS program are paid by the general revenue of the government.

Although it is difficult to make valid comparisons with foreign pension insurance schemes, the rate of contribution as apportioned between employee (3 percent) and employer (3 percent) under the National Pension System appears to be in the lower end of the scale among countries exhibited in Table III-4. As far as employee's share of contribution is concerned, Korea's 3-percent rate contrasts with 11 percent in Argentina, 9.3 percent

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3) Under the Labor Standard Law, employers with 5 or more workers are required to set aside a special fund for lump-sum payments to all qualified employees who retire or separate from their employment. The law specifies a minimum payment of 30 days' average wage or salary for each year of continuous service, which is equivalent to 8.3 percent of benefit rate.

in Germany, 8.25 percent in Japan, and 6.2 percent in the United States. It should be kept in mind, however, that a major difficulty inherent in the comparison of payroll taxes (or contribution rates) is that the tax or contribution as a rule is not levied upon the entire wage or salary, but only up to a ceiling, and that the maximum income for tax purposes expressed as a multiple of average income is incomparable from one country to another.

Table Ⅲ-5. Contribution Rates for National Pension

(Unit: %)

	1988～1992	1993～1997	1998～
Employed Workers	3.0	6.0	9.0
Employees	1.5	2.0	3.0
Employers	1.5	2.0	3.0
Severance Pay Reserve[1)]	-	2.0	3.0
Self-employed in Rural Areas[2)]	-	3.0[3)]	6.0～9.0[4)]
Voluntarily Insured Persons	3.0	6.0	9.0

Note : 1) Additional contributions are converted from the severance payment reserve fund since 1993.
2) Includes farmers and fishermen.
3) Effective for July 1995 through June 2000.
4) 6.0% for July 2000～June 2005 and 9.0% thereafter.

Source: National Pension Corporation, *National Pension Scheme in Korea*, January 1996.

The NPS program sets the ceiling on the amount of monthly income to be levied as contributions and this also serves as a ceiling on the earning base used in the computation of the pension benefits. In other words, contributions are not imposed on all earnings from covered work; they are imposed on earnings only up to 3,600,000 *won* a month. Benefits are likewise based on maximum earnings. This device limits not only the contribution bite which represents the revenue side of the pension system, but also its expenditures. The point at which the maximum income

base should be set is the subject of controversy, and this affects the objective of pension program. The maximum point is generally set by fixing a ceiling on the contribution and benefit base in the neighborhood of 1.5 to 2.5 times the average earnings. This level of ceiling usually covers 75 percent to 90 percent of the insured population and a similar percentage of the affected payroll (Horlick and Lucas, 1971).

Judging from these standards, the taxable (contribution) limit of 3,600,000 *won* under the NPS scheme may appear too high. Based on the average monthly earning of 1,200,000 *won* in 1995 (Ministry of Labor, 1996), the 3,600,000 *won* ceiling would represent a multiple of 3.0. In a dynamic economy where productivity is increasing and earnings levels are rising, however, any fixed *won* amount has different significance over a period of time. As the purchasing power of benefits decline and the effect of the contribution base limit on the proportion of earnings credited for benefits become more stringent, the contribution and benefit base needs to be raised.

5. Types and Amounts of Benefits

Benefits under the National Pension System (NPS) can be classified into four major categories: old-age retirement benefits, survivor benefits, disability benefits, and lump-sum refund. A person who has attained insured status may receive *old-age* retirement benefits for him/herself, and dependents' benefits for his or her spouse and children. *Old-age* benefits provide an important layer of income protection to retired workers and their families. *Disability* benefits are also paid if he or she is too seriously disabled to work. When the insured dies, *survivor* benefits are paid to the surviving spouse, children and dependent parents. Finally, a *lump-sum* is payable to persons who are not qualified to receive pension benefits.

Article 33 of the Enforcement Decree provides for an

adjustment of the pension benefits in accordance with changes in the living standards, wages, prices and other economic conditions.

The adjustment of benefits to price or wage fluctuations in some countries is automatic, often referred to as dynamic. In others the process is done through a periodic review and analysis of the adequacy of pensions to determine an adjustment in the level of benefits, based on changes in the wage and price index.

1) Old-Age Benefits

The standard form of old-age benefit is pension. In Korea, old-age pensions are payable to retired workers at age 60 if the covered person has worked and contributed for at least 20 years (240 months).

Traditionally there are two different approaches to determining the level at which the pension is paid. One such approach is to provide a universal fixed-rate benefit that is closely tied to the subsistence cost of living. The other approach is to try to relate individual pensions to the income level which the pension recipient enjoyed prior to retirement. Under the Korea's NPS system, however, a fixed-rate benefit and an earnings-related pension are paid together by combining the two. The old-age pension award is thus made up of a fixed-amount benefit and an earnings-related component. This provides a weighted benefit formula, which returns a larger percentage of earnings to lower paid workers than to higher paid workers.

The NPS's benefit formula for basic pension is made up of two components: a universal benefit and an earnings-related benefit. The former is derived by multiplying the nation's average monthly income in the year immediately preceding the award of pension by a factor of 2.4, and the latter is obtained by multiplying the average monthly "standard" income in the entire period of workers' insurance coverage by 2.4.[4] In addition, an

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4) Benefits and contributions are not computed on the basis of an insured

increment of 5 percent of benefit amount thus computed is added for each 12 months of contributions in excess of the minimum of 240 months.[5] The NPS also adds supplements to the pension if the recipient is supporting a wife or children under age 18. A sum of 60,000 *won* is added for the spouse and 36,000 *won* for each child.

In addition to this *basic* old-age pension, there are four other different versions of modified pension benefits. *Reduced* pension is paid to persons who do not meet the qualifying period of 20 years but are covered 15 to 19 years. The amount of pension they receive ranges from 72.5 percent to 92.5 percent of the basic pension, depending on the period of coverage. *Active* old-age pension is paid to a person who continues working after fulfilling the 20-year qualifying period and whose age is between 60 to 64. The amount of benefit for this version of pension is from 50 to 90 percent of the basic pension level. *Early* old-age pension is for those who retire after 20 years of covered employment and whose age is between 55 and 59. The pension benefit ranges from 75 to 95 percent of the basic pension. The fourth type of pension, *special* pension, is for those who are insured at least 5 years and whose age is 60. At the time when the National Pension System was introduced in 1988, workers aged between

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worker's actual monthly income but rather on the basis of his "standard" monthly income. The "standard" income under the NPS is divided into 45 different income classes, ranging from 220,000 won to 3,6000,000 won. Income grouping is divided into 45 classes and mainly done for administrative convenience. Considering today's advanced knowledge and widespread use of computer technology, however, it is doubtful that Korea still needs to maintain this antiquated system.

5) This formula for computing basic benefits may be algebraically summarized as follow:

Pension = $2.4(A+0.75B)\times(1+0.05n)$

where A = the average monthly income of all covered persons in the year immediately preceding the payment of pension,

B = the average monthly "standard" income of an individual worker in the entire period of coverage,

n = the number of years covered beyond 20 years.

45 and 59 are also entitled to receive this pension. The amount of pension ranges from 25 to 70 percent of the basic pension.

2) Disability Benefits

The disabled, particularly those with long-term disability, are faced with the loss of earned income. Unless the disabled person has replacement income from disability insurance, he or she will be economically insecure. Disability benefit is paid to those who have lost the working ability due to physical or mental disability. The amount of disability pension benefit ranges from 60 to 100 percent of the basic pension benefit, depending on the degree of disability.

3) Survivor Benefits

Social security survivor benefits provide considerable protection against social and economic risks from premature death. Benefits for survivors of covered persons or pensioners are provided under the National Pension System. Survivor benefits are paid to the spouse aged 60 years or over. A surviving child under age l8 is also eligible for survivor benefits. The amount of survivor benefits is from 40 to 60 percent of the deceased worker's basic pension according to his/her covered period of employment.

6. The Adequacy of Financing

The National Pension System (NPS) is financed by a separate fund. The major sources of revenues are tax contributions and interest earnings. Accumulated funds are invested in the Public Capital Management Fund of the central government and in securities and bonds in the financial market. Currently, two-thirds of the National Pension Fund is invested in the government sector. The NPS program is neither a pay-as-you-go financing nor financed on the basis of full funding. Instead, the program is

presently financed on the basis of partially funded financing. Under this financing scheme, a large fund is accumulated so that benefits and expenses in the distant future can be paid in a timely manner.

Recently, however, there has been widespread concern about the long-term financial solvency of the NPS. Newspapers, labor groups, and others expressed less than full confidence in the National Pension System. Financial viability is important because the NPS is the major social security program for most Koreans, and if it fails to provide the promised benefits, social security would be jeopardized for many persons.

In fact, the NPS does have serious long-run financial problems. If nothing is done to resolve the current pension structure, future contributions will have to rise sharply to finance scheduled benefits. Recent long-range actuarial estimates show that revenues in the NPS cash benefits program will be able to cover benefit commitment for only about 20 years. With the beginning of the full-scale payment of old age pension from 2008, scheduled benefits will exceed projected revenues in 2022 and the accumulated fund will be exhausted by 2033 (see Table III-6).

Table Ⅲ-6. Long-Range Financial Outlook of National Pension

(In Billions of 1993 Won)

	Revenue	Expenditure	Difference	Accumulated Fund
1998	8.7	1.5	7.2	27.3
2010	35.9	10.8	25.1	183.1
2021	56.6	45.5	11.1	327.7
2024	59.9	60.0	-0.1	310.6
2034	57.9	121.4	-63.5	-60.6
2035	59.4	127.6	-68.2	-127.4
2050	87.4	202.7	-115.3	-1,326.3

Source: National Pension Corporation, *The National Pension Research Center*, July 1997.

The long-term deficit problems of the NPS could be resolved by a combination of approaches involving reductions in pension benefits, together with increase in revenues. Solutions for slowing the growth in future national pension spending are particularly important because this program is clearly affected by the aging of the population.

The proportion of elderly people will increase substantially in the coming decades (see Table II-8). According to the National Statistical Office, the number of people aged 65 or older will more than double between 1995 and 2020, whereas the number of people who are 15 to 64 years old will increase by only 14 percent. Consequently, over the next several decades, young people will have to support a growing number of the elderly.

Korea is one of the most rapidly aging countries in the world. It must act immediately to meet the double challenges of aging population and rapidly changing economic conditions. Pension reform is needed to meet the challenge of a looming financial crisis. The challenge is to find a politically viable transition path to a more efficient system of old age pension program. Change in the current system is inevitable, and the longer the reform is postponed, the more difficult it will become. It must be reminded, however, that if inadequate solutions are selected now, it will be years before the unwanted effects are manifested. Reform options open for Korea may include raising the retirement age, flattening out the benefit structure, raising contributions slightly, and improving the quality of governance (James, 1995; Beattie and McGillivray, 1995).

Ⅳ. The Health Insurance Scheme and Social Development Policies

The record of growth of material wealth in Korea over the past two decades has been impressive. But with its increased living standard and the internal strains that rapid economic growth has generated, Korea is confronted with newly emerging problems in the social sphere. Among these problems are a discrepancy between economic and social development, an imbalance in the distribution of income and wealth among social groups and among different regions, and the various pressures arising from rapid urbanization. These growth-induced phenomena are likely to multiply unless counteracted by specific policies and measures.

During the first 15 years of the nation's five-year development plans, which began in 1962, the nation's scarce resources were devoted mainly to rapid economic growth, whereas social development was given low priority in the allocation of resources.. In the pursuit of a "growth first and distribution later" development strategy, the government gave greater priority to industrialization and economic growth in general than to equity and social development.

Not until the Fourth Five-Year Economic and Social Development Plan (1977～81) did the government begin to recognize that economic growth cannot be regarded as satisfactory if rising output and income are not shared by wider segments of the population. The Fourth Plan identified equity as one of the three guiding principles of the plan and promoted social

development as one of its basic goals. No previous five-year plan had accorded such eminence to social development. The Fourth Plan, which placed increasing emphasis on development in the social sector, therefore represents a significant departure from the growth-first distribution-later priorities of previous plans. As a result, during the second half of the 1970s Korea began to witness a gradual shift in policy emphasis from rapid industrialization to broader social development.

During the late 1970s, the use of catch phrases such as "the prosperous eighties" and "the welfare state" greatly stimulated expectations of the society as a whole and raised levels of aspiration of the under-served and the under-privileged, in particular. Yet, in the actual allocation of the nation's resources, the social development sector continued to lag behind economic development, and popular expectations in many social development areas remain largely unfulfilled. The social development programs actually adopted and implemented during this plan period covered only limited areas of manpower development, education, and health; and not enough investable resources were provided to support other areas of social development.

It is important to recognize that social development does not take place in a vacuum. Neither the type of social problems we are concerned about nor their ultimate solutions are of a purely social nature. The process of social development is as much affected by economic and political considerations as by social welfare factors. One of the objectives of social development is to provide an opportunity for each member of society to participate in economic and social progress and to attain a decent standard of living. But in Korea an institutional structure is lacking through which a greater number of people could participate equally in the rapidly expanding industrial base of the economy, and this has been one of the causes of the inequitable distribution of developmental benefits.

The predominant policy role of the Korean government in the nation's economic affairs has been widely recognized, and

various government economic policies have had important social consequences. Economic policies and measures that the government adopted to accomplish specific economic objectives in the process of rapid growth and industrialization have often served to perpetuate the economic power of the upper stratum of Korean society. The export-oriented, rapid industrialization policy provided relatively greater economic benefits to the entrepreneurial group constituting this upper stratum and relatively fewer benefits directly from government policies. Undoubtedly, this trend helped bring about greater concentration of the ownership of wealth and restricted the pattern of income distribution in Korea.

Korea's urban-oriented industrialization policies have also caused imbalances in the geographic distribution of the benefits of economic progress, with resultant undesirable social and political consequences. When a largely agricultural country is so rapidly transformed by export-oriented industrialization, it is the cities that will reap the lion's share of the benefits in the short term. Rural people have gained relatively less access than urban dwellers to the social benefits of economic prosperity because the preponderance of investment has been in the industrial sector of the economy. The high rate of return on capital investment in Korea's industrial urban sector has, moreover, made private investment in rural areas less attractive than ever. Although the government has tried to promote rural development, especially through the Saemaul movement, rural people still do not have access to the hospitals, schools, and similar benefits that the urban population has come to enjoy during the recent period of rapid industrialization.

Today, as in the past, regional disparities exist in the availability of education, health care, and other services. The concentration of educational institutions and health facilities in urban areas is a factor that does not contribute to the objectives of more equal distribution and, if not corrected, will retard the full development of human resources. It has also created additional pressures on the rural population to intensify the already rapid urbanization that has been taking place in Korea. The recent

massive migration of rural people to urban areas was prompted in part by the widening urban-rural differential in the quality of life, and not solely by the availability of jobs.

The primary purposes of this study are to examine the health insurance scheme of 1976 in the light of recent changes in social and economic conditions in Korea, and to identify the lessons that can be learned from the Korean experience with national health insurance. To provide a wider perspective on the historical context in which policy measure was taken, however, and to assess the major effects of the health program within the broader framework of national policies for socioeconomic development, it will be instructive to outline first some of the other social development programs of the 1960s and 1970s.

1. Other Social Development Policies

Improvements in social welfare through the early 1970s can be attributed not so much to the planned expansion of social development expenditures, but rather to development strategies and policies that resulted in expanded employment opportunities and to concomitant increased investment in social infrastructure. In contrast to other countries at similar levels of income, Korea has committed a much smaller proportion of government expenditure to health, housing, income security, and other social services. Social development expenditure during 1976～1978 (see Table Ⅳ-1), for example, was given relatively high priority by the governments of Brazil (accounting for 51.5 percent of total government expenditure), Mexico (45.6 percent), Malaysia (33.2 percent), and Turkey (27.6 percent). The lower priorities given to such services in Korea (22.5 percent) and Taiwan (20 percent) during the same period can be partly explained by heavier national defense burdens. If education is excluded, however, the magnitude of difference among all these countries is even bigger, ranging from a high of 45.3 percent in Brazil to a low of 6.9

percent in Korea.

Table Ⅳ-1. International Comparison of Government Expenditures on Social Development, 1976～1978 Averages

(Unit: %)

Country	Education	Health	Social Security and Welfare	Other	Total	Total, Excluding Education	Per Capita GNP, 1978 (US $)
Brazil	6.2	7.2	37.6	0.6	51.5	45.3	1,510
Mexico	19.2	4.2	22.0	0.2	45.6	26.4	1,400
Malaysia	21.7	6.5	2.8	2.1	33.2	11.5	1,150
Turkey	20.1	2.4	2.9	2.3	27.6	7.5	1,250
Korea	15.6	1.5	4.7	0.7	22.5	6.9	1,310
Taiwan	6.4	1.1	12.5	-	20.0	13.6	1,453

Sources: IMF(1981); IMF(1978～80).

The composition of government expenditure in Korea has undergone considerable change since 1961, but public spending on social development has always been less than that on economic development. Moreover, the share of social development in total government expenditure declined from 21.5 percent in 1963 to 20.7 percent in 1980 (see Table Ⅳ-2). Government support of health and other social development programs has never been substantial in Korea, and the government has left the provision of these services largely to the private sector (Mason et al., 1980).

1) Housing

Government investment in housing has been low. The public-sector contribution to the nation's housing supply increased gradually after 1965, accounting for an average of about 30 percent during the Fourth Five-Year Development Plan of 1977～1981 (KNHC, 1983). Only a small proportion of total public-sector housing investment funds was allocated for low-income housing, however, and government investment in low-income family housing in urban areas has been lagging, especially in

view of the rapid urbanization occurring since the mid-1960s. Two major problems retarding development of low-cost housing are the high cost of money and property price escalation spurred by real estate speculation. A third problem is the difficulty of obtaining housing loans. Institutional arrangements are needed to ensure that affordable housing is available to low-income families, possibly through government-guaranteed mortgages at low rates of interest.

Table Ⅳ-2. Distribution of Government Expenditures on Economic and Social Services, Selected Years

(Unit: % of total expenditures)

Item	1963	1968	1975	1980
Social Services (total)	21.5	22.7	22.5	20.7
Education	13.4	16.1	14.7	14.9
Health	1.1	0.9	0.6	1.0
Social Security and Welfare	5.9	4.8	6.3	3.4
Other, including Housing	1.1	0.9	0.9	1.4
Economic Services	33.1	32.4	33.5	27.7

Source: BOK, *Economic Statistics Yearbook*, 1964～81.

2) Education

During the 1960s and 1970s, the majority of social development expenditure was devoted to education, and only a small fraction was allocated to health, housing, and other social services (see Table Ⅳ-2). Social development programs, for example, constituted just over one-fifth of government expenditure in 1980, with 14.9 percent of total expenditure going to education and the remaining 5.8 percent going to non-education programs. Despite the preponderance of education in the overall government allocations for social development, public expenditure on education has remained relatively low (about 3 percent of GNP) in recent years. The government share of in-school expenditure (the expenses incurred in the construction and operation of schools)

declined from 57 percent in 1971 to 51 percent in 1976, leaving the increased share of the financial burden to private households (KDI, 1980; McGinn et al., 1980). However, even though privately financed education has become increasingly important, government expenditure on education has increased in real terms because the student population remained relatively constant while GNP was growing rapidly during the 1970s.

3) Pension Programs

Korea's fragmented social security programs originated in the early 1960s. The first social welfare legislation was the Livelihood Protection Law of 1960, which remains in force as the basic legal instrument for present-day public assistance programs for the poor. There are two major groups of persons entitled to receive public assistance under this law: (1) those unable to work(persons 65 years old and over, children under age 18, and the mentally and physically handicapped) and (2) deserted, pregnant women and those regarded as absolutely poor. Eligibility conditions require first that a person in either of the above categories not have a legal guardian (or the legal guardian not be capable of supporting the person) and second that the person's combined income and wealth not exceed a fixed ceiling (set annually by the government).

This law was followed by the Civil Service Pension Law in 1960 and the Military Pension Law in 1963. By a separate law enacted in December 1973, university professors and teachers in private educational institutions were provided with either pension or lump-sum benefits to replace the income loss resulting from old age, disability, and death. The nature and scope of benefits provided under this law are very similar to those provided under the civil servants' pension program, which covers teachers in the public institutions. By the second half of the 1970s, therefore, retirement benefits were available to at least a limited segment of the population comprising civilian officials, military personnel, and the teaching profession. One consequence of the implementation

of these three pension laws is that a large portion of government funds allocated annually for social security purposes is automatically committed to former pubic sector employees. The remainder is divided among a variety of other social security programs - broadly defined to include social insurance, public assistance, veterans' relief, and social welfare institutions. In 1979, for example, government spending on all social security programs was 328.9 billion won (see Table Ⅳ-3), which represented a mere 1.1 percent of the 29,357 billion won GNP in that year. Expenditures on the pension schemes and veterans' relief accounted for 45 percent of social security expenditures that year, therefore, only a small fraction of 1 percent of GNP was available for allocation among all other social security programs.

Table Ⅳ-3. Estimated Social Security Expenditures, 1979

Item	Amount(10^9won)	Percentage of total
Social insurance	223.4	67.9
Old-age pension insurance		
Government officials	52.9	16.1
Military personnel	39.6	12.1
Professors and teachers	3.2	1.0
Medical insurance	73.9	22.5
Industrial accident insurance	53.8	16.3
Public assistance	99.7	30.3
Veterans' relief	52.1	15.8
Other public assistance	47.6	14.5
Social welfare institutions	5.8	1.8
Total	328.9	100.0

Source: Park, C. K., 1981.

The social security system inherent in Korea's tradition of extended families has tended to deteriorate rapidly in the increasingly urbanized and industrial society of recent decades, and yet it is not being replaced at the same rate with alternative social welfare institutions and systems. The National Welfare Pension Law was originally conceived to fill such gap. The

avowed purpose of this system, as stated by the Ministry of Health and Social Affairs (MOHSA) in the December of 1973 draft of the law, was "to contribute to the promotion of the secure life and welfare of the people" by providing protection to workers and their families against loss of earnings resulting from retirement, death, or disability. The National Welfare Pension Law represented the first expression of a changed direction in public social welfare policy and gave promise of being the first step toward the development of a manageable social security system for all Koreans.

The law envisaged a national welfare pension program that would provide four types of benefits to workers in firms with at least 30 employees. Persons who attained insured status would be entitled to receive retirement benefits for themselves and dependent benefits for their spouses and children. When the insured died, survivor benefits would be paid to the surviving spouse, children, or dependent parents. Benefits would likewise be paid in the event of serious disability. The law also provided for a lump-sum payment to persons not qualified to receive pension benefits. The formula by which these benefits would be calculated is weighted to replace a greater proportion of preretirement earnings for low-income earners than for persons at the upper end of the income scale (Park, 1975).

The National Welfare Pension Law was enacted in December 1973, at a time when the nation's policymakers were already grappling with foreseeable adversed effects of the recent Middle East war and oil shock on the Korean economy. The Presidential Emergency Decree of January 1974, promulgated in the wake of the worldwide energy crisis, postponed the implementation of the newly enacted pension program because the government feared that an attempt to finance this nationwide scheme would exacerbate the economic downturn. Thus, although this was one of the most important and comprehensive of the government's social development initiatives in the early 1970s, the law was not brought into force until 1 January 1988.

4) Industrial Accident Insurance

As in most other countries, the provision of medical care and the betterment of the financial plight of victims of industrial accidents and occupational diseases received early attention by the Korean government. The Industrial Accident Insurance Law, enacted in November 1963, applies to firms with 16 workers or more. In certain types of hazardous employment, such as mining, chemicals, and plastics, however, the compulsory coverage extends to enterprises with a minimum of only five employees. The benefits provided under this compensation program are broadly classified into medical benefits and cash benefits. The medical benefits provide full medical and hospital care to injured workers until they recover completely. The cash benefits are divided into those for temporary sickness and those for disability. If a temporary injury prevents an employee from working while receiving medial, the employee receives cash benefits equal to a specified proportion of regular earnings. The second type of cash benefit is provided in cases of permanent disability. Severely disabled workers have a choice of either a pension or a lump-sum payment. The program provides lump-sum payments to less severely disable persons and also to the survivors of any worker who dies as a result of an industrial accident (Park et al., 1981). The industrial accident insurance program, which has a relatively long history, is generally considered one of the most successfully operated social security branches in Korea.

2. Health Insurance Program: Enactment and Implementation

During the mid-1970s, the government identified health care as a priority area. Better health standards contribute to national economic progress through the improvement of the quality and productivity of the labor force by reducing absenteeism, debility, and disability of individual workers. The high private cost of

basic minimal health care, however, works against egalitarian objectives and discriminates against low-income groups. Heavy reliance on private expenditures in areas of basic needs such as health care and compulsory education does not contribute to the elimination of inequalities so long as overall per capita income is still relatively low. A national health care program therefore came to be seen as an essential element of socioeconomic development policy. With the acknowledgement that health care is a basic necessity of life along with food, clothing, and shelter, it became not only one of Korea's most important social issues but also a focal point of the social development component in the Fourth Five-Year Development Plan.

The enactment in 1976 of the medical assistance program for the poor and the national medical insurance scheme for the general population represent the beginnings of a stepped-up evolutionary process of social development in Korea. The primary purpose of the noncontributory medical assistance program that was put into effect in January 1977 is to provide adequate medical care to those without the means to pay. The beneficiaries are the indigent (those who receive public assistance under the Livelihood Protection Law) and persons whose income fall below a certain level (identified annually by local government authorities). Under the medical assistance program, recipients are eligible to receive both ambulatory care and hospital treatment free of charge. Low-income persons are also entitled to receive free ambulatory care, but only one-half of their hospitalization costs are paid by the government (and the recipients have to provide reimbursement for the remaining half within three years).

Under the Medical Insurance Law enacted in December 1976, Korea embarked on a nationwide, comprehensive medical insurance program. As stated in the first article of this law, the program was designed to "improve national health and enhance social security by facilitating access to medical care in the event of illness, injury, childbirth, or death." In its coverage and impact, the new law represented the first comprehensive social security

program in the nation. Its enactment was thus a landmark in the history of Korea's social legislation. The implementation of this law began in July 1977, and the health insurance program has subsequently played an important role in promoting medical care to more effectively meet the health needs of the working population.

The Medical Insurance Law established a two-part program including (1) a plan requiring employers with at least 500 workers to provide specified medical insurance benefits for their employees and their dependents (Class I), and (2) a voluntary community-based plan providing medical insurance for all others (Class II). In January 1979, complementary legislation extended compulsory insurance coverage to government officials, teachers, and the ancillary staff of private schools. Beginning in January 1980, coverage by this insurance scheme was extended also to dependents of military personnel. Although eligibility under Class I is still available only to the personnel of companies or organizations employing at least the minimum number of persons fixed by government regulation, the legal minimum has been reduced over time so that it covers, for example, companies with as few as 10 employees. All others, including the self-employed and persons working for companies that have fewer than the legal minimum, are grouped under Class II.

The medical insurance law provides broad medical and maternity benefits such as medical examinations, pharmaceutical supplies, surgery, hospitalization, nursing, and ambulance service. The insurance program is administered by the health insurance societies established for the workers in enterprises and industrial parks, and in the case of the self-employed and others (Class II) by the community-based insurance societies set up in country, town, and city administrative districts. The scheme is financed by a fixed percentage (3 to 8 percent) of the payroll, up to a certain ceiling, collected as a premium from the employer. Half of this premium must be charged to the employee. The government contributions to the system are limited to defraying the

administrative costs.

Medical care is delivered through purchase of services from existing medical practitioners and facilities. The providers of services are reimbursed (subject to coinsurance) by the insurance societies on the basis of a specified fee for each service rendered. The standard fee schedule for each component of services provided under the medical insurance scheme is set and occasionally adjusted by MOHSA in consultation with the medical profession. As in most other countries with medical insurance schemes where the cost-sharing provision is enforced, patients covered by the insurance program in Korea also share a part of the cost of medical care services. The Medical Insurance Law of 1976 provided that the patient share up to 40 percent of the cost of outpatient care services and up to 30 percent of hospitalization costs.

1) Institutional Setting

With increasing emphasis on equity and social development, Korea witnessed a major change in concern about the health of the people during the second half of the 1970s. There was a growing awareness among economists and planners of the importance of health care in development strategies for meeting basic needs. The presidents stressed the importance of expanding the accessibility of health care services to the underprivileged, by stating that health care is the "fourth basic necessity of life" along with food, clothing, and shelter. This change was also manifested in a five-year health sector loan agreement signed between the government of Korea and the United States Agency for International Development in September 1975. One of the major purposes of this agreement was to strengthen the capability of the government to plan, implement, and evaluate a low-cost health care delivery scheme directed primarily toward under-served communities (Park and Yeon, 1981).

For the first time, Korea became actively engaged in major planning aimed at improving the organization, delivery, and

financing of health care services. A new health development strategy was incorporated in the creation of the National Health Council, the National Health Secretariat in the Korea Development Institute, and the Korea Health Development Institute. The ultimate objective of these sector-planning efforts was to provide access to adequate medical care regardless of income, age, or place of residence. A related objective was the provision of quality health care with reasonable efficiency.

The absence of a well-coordinated mechanism for planning and allocating resources in the health sector attested to the low priority that this sector had been accorded in previous development plans. In the initial stages, the government did not have adequate experience with institutional arrangements, and the public sector would not have been entirely dependable. But because private organizations had been relied upon for the provision of health services for so long, investments of scarce resources were made without an appropriate framework of socioeconomic development goals. A coordinated national health development strategy might have enabled the government to assign priorities to investment projects in accordance with their expected benefits and impact on equity.

At the same time, fragmentation of responsibilities and authority among government ministries and agencies has often resulted in inefficiency and waste of scarce resources in the management of health services in Korea. MOHSA has responsibility for broad health policy coordination throughout the nation. The responsibility for administering programs that substantially affect health, however, are scattered among several other ministries as well. The Ministry of Home Affairs, for instance, is responsible for financing and operating a network of provincial and municipal hospitals and health centers. The Ministry of Education has the administrative responsibility for universities and other institutions training medical professionals and other types of health-care manpower. Finally, the Economic Planning Board (EPB) has the overall responsibility for national

development planning and resource allocation.

To provide a coordinating mechanism among the health programs of the various operating agencies, the National Health Council (NHC) was established at the cabinet level in 1976. The membership of this council was composed of the deputy prime minister (concurrently minister of the EPB) as chairman, the minister of health and social affairs as vice-chairman, the minister of home affairs, the minister of education, and three private citizens. The NHC was created to provide an effective forum for policy coordination, resource allocation decisions, and implementation for the health sector. The National Health Secretariat (NHS) was set up within the Korea Development Institute (KDI), which is operated under the aegis of the EPB, to provide inputs and resources to the council for sound planning and operation. The Korea Health Development Institute (KHDI) was also created to develop low-cost health delivery schemes and to engage in microlevel health planning research.

Thus the institutional basis for coordination in health planning and implementation was well established, and the birth of this innovative setup linking three new institutions-NHC, NHS/KDI, and KHDI-was greeted by researchers, health experts, and other interested groups as a highly desirable development in the health field in Korea. However, because of the lower priority given to health issues and problems by policymakers in ministries other than MOHSA, this coordinating mechanism was not fully utilized. Although an intial meeting was health to organize the NHC formally, the council met only twice during the ensuing years and no serious health policy problems were resolved during the meetings. As one observer put it in 1980, ... the present composition of the council seems top heavy for the among of time that has to be spent on this work. It seems too burdensome for the deputy prime minister and other key ministers ... Looking at the large task ahead the council may require the full-time service of a distinguished chairman so that the intensive planning exercise can be launched successfully (Clarkson, 1980).

Although the NHC has been criticized as being inactive or indifferent in the face of mounting health problems, the system itself has produced some positive results It provided an opportunity for NHS/KDI economists to participate in a wide range of interdisciplinary research dealing with critical health policy issues and to interact with health researchers from the academic community and medical organizations, as well as with MOHSA officials at the working level. The active involvement of the NHS/KDI in interdisciplinary health research and policy planning has not only facilitated cooperation (which had previously been lacking) between researchers and policymakers, and between economic planners and health planners, but also made significant contributions to the design and implementation of a number of important health policy measures.[6)]

2) Health Care Delivery System

The nation's health resources became concentrated in the urban areas because the higher population density and the relative affluence of urban dwellers created a greater effective demand for such services, as compared with the rural sector. It is estimated that in the mid-1970s almost 87 percent of physicians and 90 percent of medical facilities were in urban areas, although only about half of the nation's population resided in those areas (Park, 1979). Furthermore, there was little organized delivery of primary health care services withing the system. The expansion of the health delivery system has followed the traditional pattern of emphasizing a high degree of specialization in the training of physicians, thus limiting the number of physicians available for

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6) In a study commissioned by the Minister of Health and Social Affairs in 1978, for example, the NHS/KDI strongly recommended that local hospitals, run by city and provincial governments as government agencies, be managed by a newly created independent institution under the broad supervision of MOHSA. The study served as a broad basis for extensively reforming city hospitals in Seoul in 1982 (NHS, ROK, 1978).

primary care. Not surprisingly, under the growth-first distribution-later philosophy that pervaded the early 1970s, the modern hospitals in urban centers prospered and benefited from the most advanced medical technology available, while primary health care services in the rural areas lagged far behind.

Although innovations of less traditional, low-cost alternative approaches to the delivery of health services to the rural and urban poor have been widely discussed, their use has been substantially limited because of the influence of organizations with vested interests in preserving the traditional methods. There was, however, a growing feeling in the mid-1970s that the climate was suitable for the gradual introduction of these innovative methods. Thus KHDI was created in April 1976 to demonstrate and test these innovative approaches, often referred to as a community-based primary health care system (KDI, 1980b).

The basic purpose of the KHDI demonstration project was to improve the delivery capacity of the public rural health system so that it would provide curative as well as preventive and promotional services to at least two-thirds of the rural residents. This system makes maximum use of the new types of health personnel, such as community health practitioners, community health aides, and village health agents, who operate at different levels in the community.

In this connection one of the important tasks assigned to NHS/KDI was to conduct an economic analysis and evaluation of the implementation and outcome of the KHDI demonstration project. Four specific evaluation objectives were: (1) to assess the performance of three new types of health personnel and to study the operation and management of the health care delivery system; (2) to measure the cost-effectiveness of the demonstration projects in three areas and to test for economies of scale; (3) to measure the accessibility to and acceptance of health services by consumers in the three demonstration areas; and (4) to assess the financial, social, and administrative feasibility of replicating nationwide the key features of the health delivery system

developed by the KHDI project (Yeon, 1981).

3) Cost and Financing

Throughout the mid-1970s much attention was focused on the rising cost of medical care and its effect on consumers and on the society as a whole. The relative cost of health care was increasing rapidly-due partly to the introduction of advanced medical technology-placing such care beyond the reach of many individuals, especially rural residents and disadvantaged groups in the urban sector. The cost barrier thus emerged as one of the major factors in preventing most people from receiving adequate medical care. The role of the government in financing health care was very limited, and there were no commercial insurance carriers. Direct spending by individual consumers was a major source of financing health services.

Therefore, it was not surprising at the time to find a consensus that a medical insurance scheme would play an important role in overcoming the cost barrier through spreading risks and pooling financial resources, and that it was necessary to introduce such a scheme without further delay. The passage of the Medical Insurance Law in December 1976 was the major accomplishment of the Fourth Five-Year Development Plan so far as social development programs were concerned. The objectives of the law were to raise national health standards and enhance social security coverage by facilitating access to medical care and eliminating the financial hardship of large medical care bills.

One of the most important and often hotly debated issues of the Korean medical insurance scheme has been the method of remuneration. According to the new system, providers of medical services are reimbursed on the basis of a fee-for-service schedule (a specified fee for each service rendered) approved by MOHSA. This schedule uses a point-unit method and is periodically reviewed by the ministry.

Prior to the implementation of the medical insurance system,

MOHSA posted a standard fee schedule to be used by the insurance system. The newly adopted point-unit system assigned point values to more that 700 services performed by providers. The new fee schedule lowered the charges for insurance patients by as much as 40 percent of normal changes. In addition, the ministry fixed prices for some 3,000 pharmaceutical items, allowing a margin of only 12 percent over factory prices (Park, 1977). In view of the rapid rise in medical costs at the time, the new government measure was intended to regulate and contain further increases in hospital fees and charges. Immediately after the announcement of the new standard fee schedule by the government, however, the Korean Hospital Association claimed that it could not provide aquate treatment to insured patients at such a low standard fee. It further asserted that the quality of medical care for insured patients might deteriorate and there would be discrimination in favor of patients not covered by insurance. In a stern warning to the medical profession, the ministry countered that providers found to be charging more than the standard fee officially set for insurance patients would be suspended from practice for up to three months (*The Korea Herald*, July 19, 1977).

It was subsequently revealed, however, that after the introduction of the medical insurance system, the utilization rate increased sharply, to the extent that hospitals that had previously had many empty beds were facing shortages of bed space. Physicians who originally protested the 60 percent remuneration suddenly realized that greater use of their services, even at lower rates of remuneration, was resulting in higher total revenues. Consequently, MOHSA was on several subsequent occasions, able to successfully ward off excessive demands from providers. Realizing that the long-term success of the newly instituted medical insurance system depended, to a great extent, on the support of physicians and the medical industry, MOHSA has sought the cooperation of the Korean Medical Association and the Korean Hospital Association through informal consultation and

discussion.

The number of persons covered by various health insurance programs increased steadily, from 3.2 million (or 8.8 percent of the population) in 1977 to 11.4 million(almost 30 percent by 1981. During the 1977~81 period, a fund of 631 billion won ($927 million at the 1981 exchange rate) was mobilized through the health insurance scheme, and 423 billion won of that amount ($621 million at the 1981 exchange rate) was channeled into organized medical services to improve the health and welfare of the people.

Despite these promising beginnings, the share of government expenditure devoted to health care is and has always been low. Government support of health programs amounted to only 77 billion won in 1980, accounting for merely 1 percent of total government expenditure. In comparison, during the same year the government committed 342 billion won for manufacturing industries and another 120 billion won for air transport (EPB, 1982). This limited government support of health services reflects the government's approach in general to social services, which have been left largely to the private sector, resulting in unevenness and inequity in distribution (Mason et al., 1980).

3. Effects of The Medical Insurance Policy Measure

One of the important advantages of a medical insurance system is that it ensures the flow of funds to the health sector and channels them into organized services. Hence a medical insurance program, even if the coverage is initially limited to a small segment of the population, has the effect of mobilizing additional financial resources for the whole health sector. By facilitating access to health care services, medical insurance can have, over the long run, a favorable effect on the state of health of many workers. Obviously much depends on its scope, on the type of financing mechanism, and on the manner in which the

medical benefits are provided.

Since its introduction in July 1977, the medical insurance program has played an important role in promoting the delivery of medical care services to meet more effectively the growing health care needs of the population. Although a latecomer in the field of medical insurance, Korea is one of the few developing countries in which the extension of coverage under the medical insurance scheme has progressed at such a rapid rate.

In July 1977 Korea embarked on a new medical insurance program requiring employers with 500 workers or more to offer medical insurance benefits to their employees and dependents. Provision was also made to include on a voluntary basis firms employing fewer than 500 workers. The automatic coverage requirement was lowered in July 1979 to include firms with at least 300 workers and in January 1981 to include all firms with 100 workers or more. Subsequently government officials, teachers, support staff in private educational institutions, dependents of military personnel, and certain categories of pensioners all become eligible for medical benefits under an act of supplementary legislation.

More than 11.4 million people were entitled to receive medical benefits under various programs of medical insurance in 1981. Nearly 70 percent of this total were dependent family members of insured workers. More than 60 percent of the insured were employed in private industries; the remainder were government officials including public school teachers and professors, and teachers in private educational institutions. The proportion of the total population covered by various medical insurance schemes increased from 8.8 percent in 1977 to 29.5 percent in 1981, an increase of 8.2 million insured in only four years (Ministry of Health and Social Affairs, 1983).

The extent of population coverage varies considerably, however, from province to province, ranging from a low of less than 15 percent in Cheju, South Chŏlla, and North Ch'ungch'ŏng provinces to 63 percent in Seoul and 31 percent in Pusan.

Moreover, though the nation's two largest cities (Seoul and Pusan) contain only about 31 percent of the total population, nearly 57 percent of the persons covered by the medical insurance system are concentrated in those two urban centers. Under the present scheme, in which eligibility extends mainly to Class I employees (i.e., those working for a company or other institution with 10 or more employees), this concentration of medical services in the larger urban areas is virtually unavoidable in the short term. More effort needs to be directed toward extending insurance coverage to the residents of North Ch'ungch'ŏng, South Ch'ungch'ŏng, North Chŏlla, South Chŏlla, and Cheju provinces, where less than 20 percent of the population are insured compared with the national average of 30 percent (see Table Ⅳ-4).

Table Ⅳ-4. Persons Covered by the Medical Insurance System, by Province and Program, 1981

Province	General population (10^3)	Specified occupations (10^3)	Total (10^3)	% distribution	% of population
Seoul city	4,176	1,269	5,446	47.7	62.8
Pusan city	714	292	1,006	8.8	31.0
Kyŏnggi	796	324	1,120	9.8	21.9
Kangwŏn	258	177	435	3.8	24.1
North Ch'ungch'ŏng	65	142	207	1.8	14.4
South Ch'ungch'ŏng	184	292	476	4.2	15.8
North Chŏlla	189	229	419	3.7	18.2
South Chŏlla	118	394	512	4.5	13.4
North Kyŏngsang	556	454	1,011	8.9	20.1
South Kyŏngsang	478	243	721	6.3	21.1
Cheju	7	47	54	0.5	11.5
Total	7,544	3,863	11,407	100.0	29.5

Note : Line and column totals are subject to rounding errors.
Source: MOHSA, ROK (1983).

The scale of medical insurance operations in terms of population coverage has expanded at an exceptionally rapid rate since its introduction in 1977. The growth of the program in both

numbers of patients treated and size of benefit payments has also been remarkable.

The medical insurance system has considerably improved the accessibility to health care services for a wide segment of the populace, resulting in increased use of a greater variety of medical services. The number of treatment cases handled through employee medical insurance societies increased from 884,000 during a six-month period in 1977 to 5.4 million in 1979 and to 14.0 million in 1981. Including government officials and teachers and their dependents (who have been covered by another program administered by the Korea Medical Insurance Corporation since 1979), the total number of treatment cases in 1981 amounted to more than 22.3 million (Federation of Korean Medical Insurance Societies, 1983).

The number of treatment cases, however, is largely influenced by changes in the population covered by the medical insurance system. To isolate this effect, Table Ⅳ-5 presents the utilization rates for hospitalization and outpatient care, derived by dividing total number of treatment cases by the number of persons covered by medical insurance. As shown in the table, the overall utilization rate (visits per person per year) increased from 0.56 in 1977 to 2.11 in 1981. The level of hospitalization appears to be stabilizing at about 0.05 in recent years, but that of outpatient consultation continues to rise rapidly. Thus the increase in the overall utilization rate largely reflects the increase in the utilization rate for outpatient care.

The growth in the number of persons entitled to medical insurance benefits is reflected in the increased revenues and benefit payments of the system, but the disproportionate increase in the latter also reflects sharply increased utilization rates and increased treatment costs since 1977. Expenditures have increased at a much faster rate than revenues, therefore, expenditures as a proportion of revenue rose sharply, form 34.3 percent in 1977 to 76.4 percent by 1981. During the 1978～81 period, revenue grew 5.6 times, from less than 50 billion won in 1978 to almost 275

billion won in 1981. In comparison, expenditures rose 8.3 times, from 25 billion won to 210 billion won over the same period. Expenditures for medical care benefits usually accounts for roughly 90 percent of total expenditures. During the entire period between 1977 and 1981, a total fund of about 631 billion won was mobilized through the medical insurance system, and 423 billion of that amount was channeled into organized medical services to improve the health and welfare of the people (Federation of Korean Medical Insurance Societies, 1983).

Table Ⅳ-5. Medical Care Utilization Rate of Persons Covered by the Medical Insurance Program, 1977~81

(visits per person per year)

Year	Hospitalization	Outpatient Care	Total
1977	0.030	0.532	0.562
1978	0.038	0.718	0.756
1979	0.052	1.314	1.366
1980	0.057	1.853	1.910
1981	0.055	2.058	2.113

Note : Figures include medical insurance programs administered by both Employee Medical Insurance Societies and the Korea Medical Insurance Corporation.

Source: Federation of Korean Medical Insurance Societies, 1983.

As mentioned earlier, sharp increases in expenditures can be attributed to increased unit costs as well as increases in utilization rates. Medical care cost per treatment case increased from 8,390 won in 1977 to 11,830 won in 1981, but the increase was attributable for the most part to a sharp increase in the unit cost of hospitalization care. During the 1977~81 period the cost of hospitalization care per case treated more than doubled, while the cost of outpatient care increased by about 35 percent.

As stated in a preamble of the Medical Insurance Law of 1976, the new insurance scheme was introduced to improve the

health and welfare of the working class, particularly of people who are unable to pay their mounting medical bills. Accordingly, the contributions to the scheme are linked to salary level, with lower premiums for lower-paid workers. It would be appropriate, therefore, to ask who bears the insurance cost and who benefits most from expenditures of medical insurance schemes. Although it is difficult to ascertain the magnitude of real costs and benefits owing to the brief experience of the medical insurance program and the dearth of data, a recent study by KDI provides some clues as to the redistributive effects of Korea's medical insurance system (Yeon et al., 1983).

Table Ⅳ-6 presents the amounts of contributions paid and benefits received per person by monthly salary scale under the 184 separate employee medical insurance societies in 1981. According to this table, members of medical insurance societies who were making on average less than 100,000 won per month paid 31,650 won in contributions in 1981, while receiving 19,600 won in medical benefits. The difference resulted in a benefit/contribution rate of 61.9 percent. By contrast, the rate for employees with average monthly salaries in the range of 100,000～150,000 won per month was higher (66 percent) and higher still (nearly 80 percent) for those in the 200,000～250,000 won salary range. As the table also indicates, the medical insurance societies with a membership earning on average less than 200,000 won per month accounted for about 60 percent of the total number of societies in operation in 1981, and their benefit/contribution rates were much lower than the 74.1 percent average for all employee medical insurance societies. These differences can be partly explained by age structure (younger, healthier workers falling in the lower salary ranges). Those blue-collar workers who have more extended family support, moreover, may be less likely to seek medical treatment in cases of minor illness.

Table IV-6. Average Contribution and Benefit per Insured Person in the Employee Medical Insurance Program, by Income Level, 1981

Salary Range[1)] (won)	Distribution of Members of Insurance Societies(%)	Average Contribution (won)	Average Benefit (won)	Benefit as % of Contribution	Dependency Rate
< 100,000	2.2	31,650	19,600	61.9	1.58
100,000～150,000	21.8	46,800	31,010	66.2	2.02
150,000～200,000	35.3	62,230	45,920	73.8	2.58
200,000～250,000	27.7	78,750	62,720	79.6	3.32
250,000～300,000	11.4	84,010	64,820	77.2	3.49
> 300,000	1.6	84,790	42,800	50.5	3.35
Total	100.0	65,020	48,180	74.1	2.75

Note : 1) Average monthly salary of members of the insurance societies.
Source: Yeon et al., 1983.

4. Lessons of The Korean Experience

The experience of Korea clearly shows that even if rapid growth of the economy is achieved and the overall standard of living is improved, a point is soon reached when it becomes necessary to increase emphasis on social development. By then, the growth of inequities in income and wealth, in conjunction with rising aspirations throughout the society, accounts for many of the frictions and instabilities with which social development planning must cope. The government as a dominant force in Korean society is able to influence the ownership of wealth and the pattern of income distribution. This ability could be used to formulate policies leading to more widely based participation in the prosperity that the country has been enjoying. It is also able, to some degree, to establish priorities and set the pace for social development.

Social development is lagging behind the rapid pace of Korea's economic development. Unless the gap is reduced, it will continue to foreshadow social, economic, and political problems of

increasing gravity. There is a growing awareness now among economists and planners that the goal of more equal distribution of benefits could be better achieved if more social development policies were enunciated from a broader perspective to parallel and complement economic growth. These policies, translated into well conceived, concrete programs and services, could then be incorporated into national development plans.

There is a need for a rational health care plan based on the equitable distribution of services and the efficient utilization of resources. In urban areas, low-cost housing and a wide range of environmental improvements are urgently needed. The rapid industrialization of the economy and the aging population, coupled with a disintegration of the traditional extended family system, emphasize the need for an old-age pension system for industrial and other workers in the private sector. At present old-age pension benefits are available only to a small group of the elite-principally government officials, military personnel, teachers, and professors. The modernizing trend in education must be encouraged and technical innovations introduced so that the rapid extension of compulsory education can be accomplished without incurring prohibitive costs.

The government has identified health care as a priority, but government investment in health has been extremely small, and private medical care has been beyond the means of most Koreans. The resulting situation has been further aggravated by a shortage and maldistribution of medical facilities and personnel. The national medical insurance scheme has been a major policy instrument for overcoming the cost barrier, which prevented a substantial number of people from receiving adequate medical care.

The introduction of the medical insurance system was an important milestone in Korea's social development, and it proved to be very popular. Nonetheless, there are inherent weaknesses and shortcomings in the system, particularly in regard to efficiency and equity standards. First, the extent of coverage is

grossly inadequate. With only about 30 percent of the population covered by the system, the majority of the low-income groups i.e., workers employed by marginal firms, self-employed persons, rural community residents-remain unprotected. These groups are more likely to be medically indigent and in much greater need of health care services than those already protected by the system. Although nearly 83 percent of the regularly employed persons in the industrial sector are covered by medical (Class Ⅰ) insurance, it has been estimated that only about 3 percent of the community residents (Class Ⅱ insurance) are protected by the medical insurance program. There are also glaring regional disparities in the availability of medical insurance. The proportions of the population entitled to medical insurance program. There are also glaring regional disparities in the availability of medical insurance. The proportions of the population entitled to medical insurance benefits vary from only 11 percent in Cheju and 13 percent in South Chŏlla to 63 percent in Seoul.

Another serious shortcoming of the employee medical insurance scheme is the regressive nature of its coinsurance provisions. Under these provisions, the patient pays for 20 percent of hospitalization costs and 30 percent of the costs of outpatient care services. In the case of hospital outpatient care, the patient's share is 50 percent. Although there are justifications for cost sharing, serious questions may be raised as to its ill effects. Since the coinsurance system is based on uniform rates, regardless of income level, it places a heavier relative burden on low-income families. As a consequence, these families may be deterred from seeking needed health services, thereby undermining a major goal of medical insurance, which is to encourage greater use of health care services by the low-income groups.

Korea's medical insurance system has been accumulating surplus funds in substantial amounts. The total revenues of the system have always been greater than the amount it actually spent for every year since the beginning of the program in July 1977. The accumulated surplus fund for the employee scheme at the

end of 1981 amounted to 118.4 billion won (138.6 billion won if the scheme for government officials is also included), roughly equivalent to the total amount expended during 1981. Unless the government deliberately intends to accumulate reserve funds to be used for construction health facilities for the insured in badly needed areas, there is no justification for accumulating such a huge reserve with contributions collected from a large number of low-income workers. Until now, however, no surplus funds have been used for such purposes.

Sound financial planning and operations are essential if the system is to earn public confidence and popular support. Such planning can be achieved only by more accurate actuarial estimates of the quantity of medical services demanded and received, the level of reimbursement for providers of services, and the amount of administrative expenses. Along with these improvements, serious consideration should be given to the reduction of either the contribution rate or coinsurance rate, particularly for low-income workers who are single. Another alternative would be to improve the level of benefits. A major deficiency in benefits is the limitation of benefit payments to six months for any single diagnosis, which denies relief from the financial burden of prolonged medical care in cases of catastrophic illness.

It is anomalous that a compulsory medical insurance program established by a national law is administered by a large number of relatively small, privately managed insurance societies. Most of the 184 medical insurance societies currently being operated throughout the nation are still too small to take advantage of risk pooling and economies of scale. Many problems and disadvantages are associated with this type of multiple system, as is evident from the experience of Japan. Among these problems are inequalities in contributions and benefits, double standards, and duplication of administration. At this stage of Korea's development, it is critically important to try to avoid the mistakes other countries have made in the past, Because of the potential advantages of economies of scale and of maximum uniformity

in coverage, facilities, and internal operation, the centralized management of a medical insurance program is likely to result in lower administrative costs and better control over benefits and coverage. Since the private sector alone does not have adequate experience in this area, centralization in the initial stages would also help to prevent duplication, abuses, and waste and could thus direct scarce health resources to where they are most needed.

All these shortcomings of the medical insurance system need to be resolved. The most urgent need is to speed up the extension of coverage to as large a portion of the populace as available medical facilities and personnel permit. A failure to do so would result in the continued waste of the most basic ingredient in social development-the human resource.

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V. Planning and Coordination of Social Security Medical Care Systems with Public Health Program

1. Recent Developments of Social Security Medical Care Schemes in Developing Countries

During the past several years, we have witnessed a significant change in the focus of worldwide concerns about health in developing countries. This change was manifested in a resolution adopted by the 1977 World Health Assembly that the main social target in the coming decades should be "attainment by the citizens of the world by the year 2000 of a level of health that will permit them to lead a socially and economically productive life "(WHO, 1979)." The 1978 Alma-Ata Conference on Primary Health Care also underscored the change in health perspectives by declaring that "primary health care is the key to attaining this target as part of development in the spirit of social justice" (WHO, 1978). There is a growing awareness among development economists and planners that health is one of the important dimensions of national development and that it is an important element of development strategies for meeting basic human needs.[7] The most relevant policy issues now being raised in

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7) See, for instance, Guy Standing and Richard Szal, *Poverty and Basic Needs*, International Labour Office, Geneva, 1979 and the World Bank,

developing countries are: how can health care coverage of the population be improved? and what would be the most effective and efficient way of doing it?

The improvement of health service provision requires a well co-ordinated effort in all areas of development. Health programs should not be isolated efforts, but should instead form part of an integrated socio-economic development plan designed to improve the general welfare of the people. Governments in developing countries are becoming increasingly aware of the advantages of health sector planning aimed at improving the organization, delivery and financing of health care services. Because of the limited availability of financial resources in most developing countries, careful planning to achieve maximum utilization of health resources is of enormous importance. Problems of financing are fundamental to extending health care to all by the year 2000.

One of the most striking developments of recent decades has been the rapid rise and expansion of social security financing of medical care services. Social security as an approach to mobilizing financial resources for medical care services has found wide acceptance throughout the world. Originating in Germany in 1883, it quickly spread to other industrialized nations of Europe in the nineteenth century; a social security medical care scheme was adopted in Japan in 1922, in Chile in 1924, and since then in most developing countries in Latin America, Asia, and Africa.

There has been a dramatic expansion of existing medical care schemes under social security systems throughout the world and more recently many new schemes have been introduced in the developing world. During the period from 1940 to 1979, the number of countries having social security medical care programs increased from 24 to 75 (U.S. Department of Health and Human Services, 1980). Out of 75 countries with medical schemes administered under social security programs in 1979, nearly 50 of them were developing countries. In addition, 16 countries

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World Development Report, 1980, Washington, D.C., August 1980.

maintained a separate program for maternity benefits. Indeed, the spread of such schemes may be even broader than these figures suggests, as health services are frequently rendered outside of what is formally referred to as the social security system.

Social security programs for sickness generally provide two types of benefits: cash sickness benefits and medical care. Although particular types of medical services provided under social security systems vary somewhat from country to country, a typical scheme offers physician care, some hospitalization, and prescribed drugs. The services of specialists, maternity care, and limited dental care are sometimes added. Certain countries maintain a separate scheme for cash maternity benefits. Medical benefits are provided either through personnel and facilities managed by the scheme, or by means of contracts with private physicians and public as well as private hospitals.

The first method, usually referred to as the direct pattern of medical care, is widely used in Latin American countries, including Colombia, Ecuador, Mexico and Peru, among others. It is also used in Burma, Iran and Turkey. Under the second method (the indirect pattern), the social security institution or government department administering the scheme pays the physicians, hospitals, pharmacists and other providers directly for services they render. This method is utilized in a majority of European countries, as well as in Japan and Korea. Although the direct pattern of organization is predominant in Latin American, some white-collar workers and self-employed persons in Brazil, Panama and Venezuela obtain medical benefits by the indirect pattern (Milton I. Roemer, 1973). In India, medical services are provided under both direct and indirect patterns.

The administrative organization for the social security medical care program differs among countries. In some countries the programme is administered by a government department. The majority of countries, however, provide for administration through some type of self-governing semi-autonomous institution, under government supervision. Some of these institutions own and

operate their own medical facilities through which at least a part of medical benefits provided under the scheme are granted. Since institutions are managed by a tripartite governing body usually composed of representatives of employers, employees and the government.

Government ministries responsible for the general supervision of this program vary from country to country. In Algeria, Egypt, Malaysia and Korea, for instance, the Ministry of Health has jurisdiction over medical care programs under social security. Because the social security programme is in most countries financed through payroll taxes, responsibility for the administrative supervision of social security medical care schemes in some countries lies with American countries, India, Lebanon, and Morocco, to cite a few instances, the Ministry of Labour exercises general supervision over the medical services which are directly administered by social security institutions. In Chile, the medical services of the social security system are entirely controlled by the Ministry of Health. On the other hand, it is interesting to note that the Ministry of Finance is responsible for administrative supervision in Guinea.

One of the important advantages of a social security medical care system is that it ensures the flow of earmarked funds to the health sector and channels them into organised services. Hence, a social security program, eben if the coverage is initially limited to a small segment of the population, has the effect of mobilizing additional financial resources for the whole health sector. By facilitating access to health care, social security can have, over the long run, a favourable effect on the state of health of many workers. Naturally, much depends on the type of financing mechanism, on its scope, and on the manner in which the medical benefits care provided. During the 1970s, governments is many developing countries became increasingly interested in the potential role many developing countries became increasingly interested in the potential role that a social security system could play in promoting the organization and delivery of medical care

services to meet more effectively the growing health needs of the population. Workers and their employers began to press governments to introduce or expand a social security medical care scheme under which by the spreading of risks and the pooling of resources people could obtain better access to medical care in sickness, maternity or work injury.

In a number of developing countries, social security programs which include the provision of medical care carry on an important health-related activity.[8] Although the magnitude of financial resources raised for health care purposes by the social security system is much smaller in developing countries than in advanced industrialised nations, it is still very significant in a number of countries. The size of these financial resources for selected developing countries is presented in Table Ⅴ-1.

It can be seen from the table that there are tremendous differences both among countries and world regions in the role social security systems play in promoting medical care services. The table reveals that social security medical care schemes are more developed in Latin America than in Asia and Africa. The proportion of Gross Domestic product devoted to medical care delivered through social security ranged from a high of more than 2.2 per cent in two Latin American republics (Costa Rica and Panama) to a low of less than 0.2 per cent in two African countries (Libya and Tunisia) and two Asian countries (Burma and India). The delivery ratio of GDP amounted to more than 1 per cent in five Latin American countries. Social security medical benefits accounted for more than 70 per cent of total social security expenditures in Costa Rica, El Salvador, Mexico and Nicaragua as compared with less than 10 per cent in Burma, Mali and Uruguay.

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8) Social security programs as used here refer to various schemes classified under the heading of "social insurance and assimilated schemes" and "family allowances" by the International Labour Office. See *The Cost of Social Security, 1979, op. cit.*, p.10.

Table Ⅴ-1. Comparison of Social Insurance Medical Care Expenditure with Total Social Insurance Expenditure and GDP, Selected Countries, 1974

(unit: %)

Country	Social Insurance Medical Care as percent of Total Social Insurance Benefit Expenditure	Social Insurance Medical Care Benefits as Percent of GDP[1)]
Bolivia	54.3	1.187
Brazil	24.1	0.961
Burma	1.2	0.000
Chile	25.2	1.134
Costa Rica	72.9	2.274
Ecuador	27.2	0.507
Egypt	19.2	n.a.
El Salvador	72.6	0.702
Guatemala	53.5	0.446
India	11.5	0.043
Korea(1979)	41.8	0.320
Libya	63.3	0.187
Mali	7.4	n.a.
Mexico	71.6	1.351
Nicaragua	72.4	0.837
Panama	55.8	2.246
Tunisia	18.3	0.194
Turkey	43.3	0.463
Uruguay	4.5	n.a.
Venezuela	61.6	0.487

Note : 1) Medical care as defined here includes benefits provided under sickness maternity and employment injury schemes.

Sources: International Labour Office, *The Cost of Social Security*: Ninth International Inquiry, 1972～1974, Geneva, 1979, Table 8, pp.94～106 and Appendix Table, pp.108～113; and Chong Kee Park, et. al., *Final Report on Social Security Reform Measures in Korea*, Seoul: Korea Development Institute, January 1981, p.62 (in Korean).

The proportion of the population covered by social security medical care schemes varies considerably among countries. This is due in part to differences in their respective stages of economic development. In less developed economies, the fraction of the population with regular employment in modern sectors is usually small. Therefore, the size of the national population benefiting

from such schemes is correspondingly small. In most countries, the initial coverage is generally limited to employees of industrial establishments of a certain size or located within a certain geographical area. Self-employed persons and agricultural workers, who in many developing countries comprise a great majority of the working population, are practically left out at the initial stage. A common procedure is to start the scheme on a very limited scale, then extend it gradually year after year. The pace of extension is usually governed by the rate at which medical facilities can be built in different regions of the nation.

The effectiveness of social security medical care schemes must be measured principally in terms of the extent of coverage. Coverage extension is therefore the primary concern of social security planners in all developing countries. The percentage of population covered presents a challenge to all authorities, both of ministries of health and of social security institutions, stimulating them to extend their coverage as rapidly as possible. There are several methods by which the proportion of the population protected under social security systems has been raised. In most developing countries the system followed has been through a gradual geographic, industrial and occupational extension of coverage within a country. Coverage has also been expanded through the addition of various dependants, after protection was initially confined to workers. In addition to extending population coverage, the range of medical services provided under social security has been expanded.

Turkey is one of those countries where the social security medical care scheme was gradually extended to new types of persons and new areas. When the scheme was put into operation on 1 March 1951 only the persons employed by firms with at least four workers were covered. Through a process of gradual extension it took nine years to cover the whole country (ISSA, 1975). The Philippines introduced in 1972 a medical care insurance system with an initial coverage of regular wage earners only. Beginning January 1980, however, certain categories of

self-employed persons including lawyers, physicians, nurses and business owners became entitled to medical care coverage under the system. Meanwhile, many other countries, such as Bolivia, Brazil and Algeria have been extending coverage to include farmers.

In Latin America, where the early medical care system was heavily influenced by European practices, the rate of extension of social security coverage has progressed more rapidly than the rate of growth of the economically active population. The target of coverage extension set by most Latin American countries for the 1970s ranged between 85 and 90 per cent of the population (Alfredo Leonardo Bravo, 1975). Coverage has recently been further extended in several countries, and in Costa Rica now reaches a majority of the population. Universal health care was recently adopted in Brazil. In Guatemala, medical care benefits were extended to the wife and children of an insured worker. The reform adopted in 1979 in Peru extended health care benefits to family members of insured workers and to the self-employed population. In Bolivia, employed and self-employed rural workers, as well as their dependants, became eligible for medical benefits under the Rural Social Insurance Scheme introduced in August 1978 (ISSA, 1981).

Although a late-comer in the field of social security, Korea is one of few developing countries where the extension of coverage under the medical care scheme has progressed at an exceptionally rapid rate. On 1 July 1977 Korea embarked on a new medical insurance programme requiring employers with 500 workers or more to offer specified medical insurance benefits to their employees and dependants. Provision was also made to include on a voluntary basis firms employing less than 500 workers. The compulsory coverage requirement was then lowered to include firms with at least 300 workers in July 1979 and to include all firms with at least 100 workers on 1 January 1981. On 1 January 1979, under an act of complementary legislation, government workers, teachers and the supporting staff of private

schools became compulsorily insured. Dependants of military personnel are now also covered by this insurance scheme as of January 1980.

Table Ⅴ-2 presents the distribution of covered population by program and by category for 1980. The total number of persons covered by both medical insurance schemes for the past four years, including estimates for 1981, is shown in Table Ⅴ-3. It is quite interesting to note how rapidly the extent of population coverage under medical insurance programs in Korea expanded over a four-year period, from only 8.8 per cent of the nation's total population in 1977 to 27.9 per cent in 1981.

Table Ⅴ-2. Persons Covered by Medical Insurance by Program and by Category, Korea, 1980

(Unit: number in thousands)

	Insured	Dependants	Total
General Population	2,037	3,010	5,047
Compulsory coverage	2,023	2,961	4,984
Voluntary coverage	14	49	63
Specified Occupations	800	2,786	3,586
Government workers	701	2,222	2,923
Teachers and supporting staff	99	275	374
Military dependants	-	289	289
Total	2,837	5,796	8,633

Source: Federation of Korean Medical Insurance Societies.

In addition, the non-contributory medical assistance program for indigent and low income persons was enacted in 1976 and was put into effect on 1 January 1977. Under this program, some 369,000 indigent persons who did not have the means to pay for health care became eligible for government-financed medical treatment, including both out-patient and in-patient care. Similarly, 1,726,000 low-income persons became entitled to receive out-patient medical care which is paid for completely by the government and in-patient care which is 30 per cent defrayed

by the government. Moreover, the government provides no-interest long-term loans for the other 70 per cent, a figure that was later changed to 50 per cent. The number of persons benefiting from this program currently amounts to roughly 3.7 million (see Table Ⅴ-3).

The total number of persons covered by the social security medical care program including both the medical insurance and medical assistance programs is expected to reach 27.6 million by the end of 1986, the terminal year of the Fifth Five-Year Plan. This number represents approximately 66 per cent of the national population, compared with a 37.5 beneficiary rate in 1981.

Table Ⅴ-3. Population Coverage of Social Security Medical Care Programs, Korea, 1977~81

Year	Number (in thousands)			Percent of Population		
	Total	Medical insurance	Medical assistance	Total	Medical insurance	Medical assistance
1977	5,307	3,212	2,095	14.5	8.8	5.7
1978	5,979	3,883	2,096	16.2	10.5	5.7
1979	9,921	7,787	2,134	26.4	20.7	5.7
1980	10,775	8,633	2,142	28.2	22.6	5.6
1981	14,554	10,823	3,731	37.5	27.9	9.6

Source: Federation of Korean Medical Insurance Societies.

2. Co-ordination Between Public Health Services and Social Security Systems

The inadequacies of public health services in developing countries have been widely recognised. Public health services usually cover only a small fraction of the population in many developing countries. In some cases, the coverage is so small that the impact of the services on the nation's health is at best negligible (World Bank, 1975). The small amount government spends per person may be one of the main reasons for the

narrow coverage provided by public health services. A study by Mouton for the International Labour Office noted that "the insufficiency of financial means largely explains the serious inadequacies in the public health infrastructure of the African countries with their shortages of doctors and auxiliary medical staff and their lack of equipment and facilities" (Pierre Mouton, 1975). This kind of background along with the prevailing deplorable health situation has led many developing countries to introduce social security schemes with adequate services infrastructure, for medical care for the working population.

As the number of countries using social security schemes for financing medical care services has increased rapidly over the last two decades, the question of maintaining close co-ordination between social security systems and public health programs has emerged as an important issue in the organization, delivery and financing of health care. Unfortunately, separate financing mechanisms often result in independent programs along administrative lines quite separate from those of the ministry of Health. Lack of co-ordination of social security systems with national health policy and programs may thus prove to be a major obstacle to achieving the basic goal of extending health coverage over the population. These two methods of providing health care services, therefore, should be made to complement, rather than compete with, each other in pursuing the common objective of improving the health status of the population. They must complement one another in such a way that the resulting harmony of efforts may in turn bring about greater effectiveness and better returns.

As a growing number of developing countries are making efforts to extend health care coverage to all citizens and at the same time are seeking the most effective and efficient way of achieving this, it is imperative that they develop a concerted approach to the planning, organizing, financing and administration of health care services. There is unanimous consensus that social security medical care programs should be co-ordinated as closely

as possible with the activities of the Ministry of Health and they should be planned as part of the overall national health care system. A Joint Committee on Personal Health Care and Social Security organised in 1970 by the International Labour Office and the World Health Organization recommended that "where a social security system and a public health system for the provision of personal health care operate separately, ways should be sought of achieving maximum co-ordination between them" (WHO, 1971).

In Latin America, where the concept of social security financing of medical care was introduced and implemented much earlier than in Asia or Africa, most countries attach greater importance to the co-ordination of medical care programmes between the social security institutions and the public health authorities. The earliest and the most comprehensive integration has been achieved in Chile, but various approaches to co-ordinating and integrating health services activities have been tried over the years in almost all the other countries. They have initiated the co-ordination process through various legislative, administrative, and financial mechanisms. Progress in co-ordinating medical care programs has been achieved through, for instance, joint use of the same medical facilities by social security institutions and public health authorities, provision of preventive services by social security agencies based on standards regulated by the Ministry of Health, and joint administrative councils and commissions for supervision of all health activities.

Since 1924 when the first social security law to cover the costs of general medical care was enacted, Chile has adopted various legislative and administrative measures to improve co-ordination in the health sector, culminating in the establishment of a National Health Service in 1952. In 1975, the Ministry of Health became the state's supreme authority for planning, co-ordinating and supervising all health services activities in the nation. In the Dominican Republic, a "co-ordination agreement" was signed in 1972 between the Secretariat of Health and the Social Insurance Institute of the Dominican Republic which created

a commission to co-ordinate the delivery of medical care services in the nation. The commission was charged with "promoting co-ordination in the execution of health policy, rationalization of services, expansion of rural coverage, and co-ordination of personnel training, financing and statistical and information systems" (Alfredo Leonardo Bravo, 1975). In almost all countries, the Ministry of Health assumes the major responsibility for promoting co-ordination among all the institutions operating in the health sector. In Brazil, however, total responsibility for co-ordinating medical care programs in the nation is assigned to the Ministry of Social Insurance and Assistance (MPAS), which provides general supervision of the National Social Insurance and Assistance System (SINPAS). The latter organization is comprised of the following autonomous institutes: Social insurance cash benefits (INPS), medical care (INAMPS) and financial and property administration (IAPAS) (Celso Barroso Leite, 1978).

In most developing countries, scarcity of resources is one of the major factors in planning and co-ordination of social security medical care schemes with public health programs. With severe shortages of physicians and other auxiliary personnel and a lack of equipment and facilities, it would be highly wasteful to launch a separate and independent medical care program under social security. Close co-ordination is needed in order to obtain coherent planning, execution, and evaluation of all health-related activities. This avoids duplication and waste in the use of scarce health resources. The major objective is to attain maximum utilization and productivity of existing manpower and material resources in the various public and private medical care institutions and to make future allocation of investment fit more closely with emerging needs. Co-ordination of efforts in resource use would bring advantages to both public health and social security institutions.

When social security programs for personal health care were first launched in Libya and Tunisia, for example, a special arrangement was made to the effect that social security agencies

provide medical benefits through the existing facilities and personnel of the Ministry of Health (ILO, 1972). This arrangement strengthened the public health facilities through subsidies provided on behalf of the protected persons and also improved the utilization of these resources. Although the social security medical care program was introduced in Korea as a separate entity unrelated to the public health organization, both come under the general supervision of the Ministry of Health and Social Affairs. While the Korean social security scheme provides the great bulk of its medical care services through contracts with private clinics and hospitals, the joint use of provincial governmental hospitals by social security and public health agencies considerably improved the operation of existing health resources by eliminating the under-utilization of these hospitals.

Another objective of promoting close co-ordination between social security systems and public health services is to give total health coverage to the population through preventive, curative and rehabilitation services. Traditionally, the medical care services provided through social security schemes have been confined to the strictly curative aspects of diagnosis and treatment of diseases, as distinct from other types of health services such as community health care and preventive services. The public health organization, on the other hand, is concerned exclusively with the traditional preventive concept of health care. In recent decades, however, social security institutions have become increasingly aware of the need to expand their activities into the field of personal preventive medicine and are putting more emphasis on preventive service programs in order both to reduce the cost of medical treatment and to combat factors detrimental to the health and productivity of workers. Public health services have been expanding their fields of activities to curative services. Thus, social security and public health institutions now have converging objectives and the complementary nature of their programs and services necessitates some interdependence between public health and social security programs.

The social security schemes in force in many Latin American countries long ago recognised the importance of preventive care and in 1967 social security institutions in Guatemala and Venezuela concluded agreements with the Health Ministry to facilitate the provision of preventive services, especially for mothers and small children. In considering the provision of integrated health programs offering both prevention and treatment, therefore, the co-ordination of preventive services under the Ministry of Health with social security institutions providing curative care is a prerequisite. When a social security medical care scheme is set up within the basic public health framework, as in Tunisia, it is of course much easier to provide preventive services. If, on the other hand, an entirely separate scheme is established, as in Ecuador, it must develop its own personal preventive services or make an arrangement with the public health authorities which is often administratively difficult (Milton I. Roemer, 1969).

The importance of co-ordination in national planning of health resources and services should also be noted, for effective health planning is often handicapped by wide dispersion of authority among several agencies. Therefore, a clear understanding of the inter-relationship among all health activities is "an essential requirement for effective health planning. All too often, national health plans are made with consideration only of the funds available in the budget of the ministry of Health. Yet funds of greater magnitude are often spent by other ministries (for example, social security or education) for various health-related purposes, not to mention the generally large aggregate health expenditures made by private individuals and families. Many planning efforts may be frustrated largely because they are limited to the planning efforts may be frustrated largely because they are limited to the fraction of the health sector encompassed by the Ministry of Health, rather than its full scope" (A statement made by Dr. E. Tarimo, Director of the Division of Strengthening of Health Services in the World Health Organization, at a World

Health Organization Inter-regional Workshop on Financing of Health Services, Mexico, November 26～30, 1979).

Co-ordinated planning of health resources and services under both social security and public health agencies is particularly necessary because social security institutions usually raise and spend large sums of money separately from the Ministry of Health. Co-ordination, however, need not imply that "all money should come from a single source, but rather, that the spending of funds from different sources should be planned in a rational way" (WHO, 1978). It is generally agreed that social security health care programs should be designed within the general framework of an overall national health plan. Furthermore, the relevant national health planning authorities should take the initiative in incorporating all existing and potential health related activities under social security schemes into the total health plan. Co-ordination should start at an early stage of the planning cycle, so that social security institutions should feel from the beginning committed to the implementation of the approved plan, to the same extent as the Ministry of Health (Pan American Health Organization, 1970). To this end, co-ordination between programme planners and those who are responsible for the implementation of plans is essential.

The major responsibilities for health planning are usually assigned to the Ministry of Health in most developing countries. Yet other government agencies, such as the Ministries of Education, Home Affairs, Finance and Social Security are also partly responsible for the planning of medical staff, facilities and services. In most Latin American countries, health services are provided through several agencies with the exception of Chile, where the planning of their health services is regionalized in order to ensure that the entire population enjoys the benefit of medical care. A more thoroughly integrated form of health planning can be found in Tunisia where the social security system makes a regular transfer of funds to increase the resources of the Ministry of Health. The extra money derived in this way

from social insurance contributions is thus used to strengthen a unified network of health facilities throughout the country so that the entire population may be better served (WHO, 1978).

Korea has an elaborate system of socio-economic development planning. The Economic Planning Board (EPB) as the central planning body, has the primary responsibility for preliminary analyses and drafting of its five-year national plan. For this purpose, the EPB has set up 27 sectoral task groups whose major task is to consider policy objectives and structural reforms and to prepare initial drafts of sectoral plans. Each task group conducts in close co-operation with the Korea Development Institute a series of open forums to discuss and reach a broad public consensus on key sectoral issues. The work of this sectoral study group is co-ordinated through the Co-ordinating Committee on Economic Planning chaired by the Vice Minister of the EPB. The final drafts prepared by the EPB are then submitted to the Interministerial Examination Council on Economic Planning which is chaired by the Prime Minister. Finally, the plan is approved by a presidential decree. Of the 27 sectoral task groups, three deal with health and social security problems. These include overall social development planning, social security, and health. The latter two task groups are chaired by the Assistant Minister of the Ministry of Health and social Affairs. In each task group the role played by research institutes including the Korea Development Institute and the Korea Health Development Institute, academic circles, and various societies and associations, has been significant.

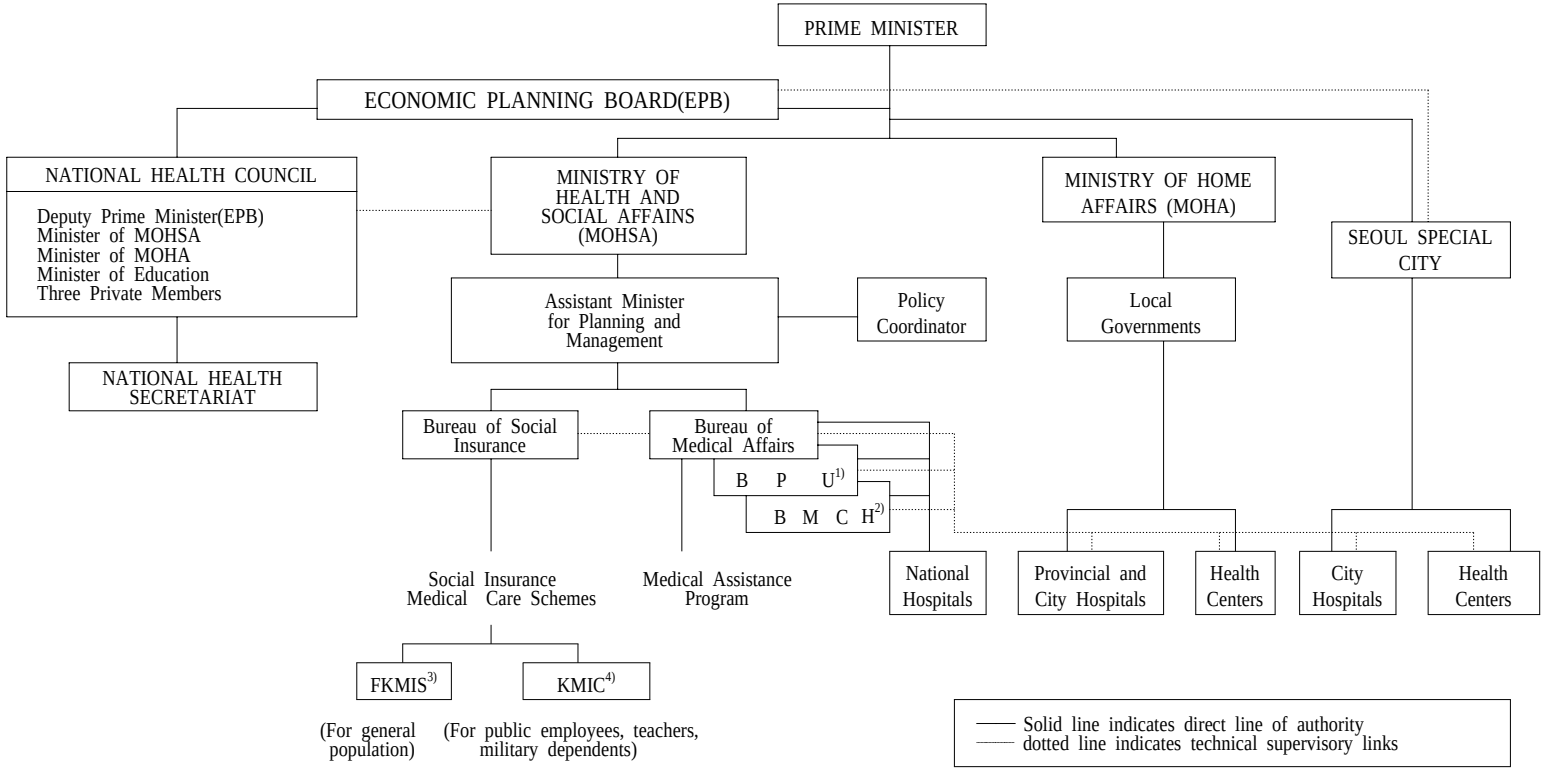
The Ministry of Health and Social Affairs has responsibility for broad health and social security policy co-ordination in Korea (see Chart 2). However, the programs that substantially affect health are scattered over several other ministries as well. The Ministry of Home Affairs, for example, is responsible for financing and operating, through local governments, a network of provincial and municipal hospitals and health centres. The Ministry of Education has the authority and administrative responsibility for

the universities and other institutions training medical professionals and other types of health manpower. Finally, the Economic Planning Board has overall responsibility with respect to overall planning and resource allocation policies for the nation. Thus, fragmentation of responsibilities and authority among various ministries has often resulted in inefficiency and waste in the management of health services in Korea (Chong Kee Park, 1980). The government is now seriously considering the reorganization of the health system so as to bring about more efficient planning and operation of limited health resources and manpower. In a recent study commissioned by the Minister of Health and Social Affairs, the Korea Development Institute recommended that local hospitals run separately by each city and provincial government be managed by a newly-created semi-autonomous institution under the broad supervision of the Ministry of Health and Social Affairs (Chong Kee Park, 1980).

In order to provide a co-ordinating mechanism among the programmes of the various operating agencies, the National Health Council was established in 1976.

The membership of this Council is composed of the Deputy Prime Minister (concurrently Ministry of the Economic Planning Board) as chairman, Minister of Health and Social Affairs as vice chairman, Minister of Home Affairs, Minister of Education, and three private citizens. The Council is expected to provide an effective forum for policy co-ordination, resource allocation decisions and implementation for the health sector. The National Health Secretariat set up within the Korea Development Institute, operating under the aegis of the Economic Planning Board, provides inputs and resources to the Council for sound planning and operation (Family Health Care, 1979).

Chart 2. Coordination Between Social Security Medical Care Schemes and Public Health System in Korea



Notes: 1) Bureau of Public Health
2) Bureau of Maternal and Child Health
3) Federation of Korean Medical Insurance Societies
4) Korea Medical Insurance Corporation

3. Progress and Outlook in Planning and Co-ordination of Social Security Medical Care Schemes with Public Health Programs

The complex nature of health problems in developing countries has increased the need for more systematic organization of health services. For comprehensive national health planning, it is important to take account of all health related activities in a nation - both the sources from which funds are derived and the purposes for which they are spent. Social security mechanisms are increasingly used to finance health care services in many developing countries. Social security systems are regarded as an extra source of fund-raising, but the use of funds should be closely co-ordinated with the government agency responsible for the overall health services of the country. When financing comes from more than one source, there are more likely to be conflicting objectives. With the lack of resources available for health purposes in most developing countries, efficient use of existing funds is always important. This involves co-ordination among all health care systems in the nation.

In the past several decades there has been much progress, both at the national and international levels, in the movement toward planning and co-ordination of social security medical care schemes with public health programs in the developing regions of the world. As social security systems extended their coverage in more countries, health ministries set up study groups to assess the needs for co-ordination and integration of various organised health care schemes. The exchange of ideas through various international meetings and publications on the subject, which have been facilitated by the activities of international organizations, have contributed to the promotion of co-ordination between social security medical schemes and public health programmes.

As early as 1964, for example, the Pan American Health Organization meeting in Mexico adopted a resolution recommending a study of the possible methods of co-ordinating

public health services and medical care schemes under social security (Jérôme Dejardin, 1969). In the following year, the Directing Council of the Pan American Health Organization passed a resolution urging closer co-ordination between ministries of health and social security institutions and the participation of all relevant agencies in national health planning. The objectives to be pursued through this process of co-ordination are: (1) to bring about the rational use of the available resources by various institutions in the health sector; (2) to indicate ways of getting the best possible return on the available resources; and (3) to bring future investments and contributions into proportion with needs, in order to ensure their full utilization (Pan American Health Organization, 1966).

Recognizing that social security systems make possible the realienation of the objectives of a broad health policy, the International Social Security Association convened a Round Table on the Contribution of Social Security Schemes to Public Health Programmes in Mexico in 1969. The Round Table Meeting, which eventually gave rise to more frequent contacts between the Association and other international organizations such as the International Labour Office and the World Health Organization, concluded its discussion with the formulation of a series of recommendation. One of the most significant of these recommendations was one which declared that "for protection of health and for better utilization of structures and resources consecrated to this purpose, it is of primary importance that effective systems of collaboration and joint efforts be established on national and international levels, between public health and social security organs. This collaboration and joint effort could be achieved through creation of mixed co-ordinating commissions or technical committees for the study of common problems, as well as through any method of joint planning and execution" (ISSA, 1969).

A comprehensive Study Group, sponsored by the Organization of American States and the Pan American Health Organization,

was held in 1969 to discuss the co-ordination of medical services in the region of the Americas. The study Group considered four major areas of co-ordination: the formulation and execution of health policy, the provision of health care, manpower development, and financing (Pan American Health Organization, 1966). The new concept introduced during this meeting was to bring medical schools and university hospitals into the process of medical care service co-ordination. The Twenty-Fifth Meeting of the Directing Council of the Pan American Health Organization held in Washington, D.C., in 1977 also considered the question of co-ordination between social security systems and public health services.

While good working relationships have been established among countries in Latin America with respect to the liaison between ministries of health and social security institutions, collaborative movements and activities in the Asian and African regions have been rather scanty. The International Social Security Association held its Fourth African Regional Conference in Libreville in 1972 to discuss "The role of social security institutions in the planning of medical care and its extension to further groups of the population and to new regions". On the subject of co-ordination, one of the two reports submitted to the Conference noted that "the challenge of developing countries, where optimum use must be made of meagre resources without waste or duplication of any sort, is to achieve effective co-ordination in the operation and delivery of medical care even if financial support is derived from multiple sources and different agencies providing medical care establish their own medical facilities“ (ISSA, 1972). In 1974, the International Social Security Association convened the Round Table Meeting in the Philippines to discuss "organization of medical care in countries of Asia and Oceania". The agenda of the Round Table Meeting, however, did not specifically deal with the issues of co-ordination between social security medical care schemes and public health services (ISSA, 1972).

Recognizing the urgent need for close co-ordination between social security medical care programmes and the public health services, the International Labour Office (ILO) and the World Health Organization (WHO) have been co-operating in their respective activities in the field of medical care. In 1966, for instance, the International Labour Office initiated a research project to examine and analyse the organizational patterns of medical care under social security throughout the world. The final report, written by Professor Milton I. Roemer an internationally-recognised expert in the organization of health care, was published by the ILO in 1969 (Milton I. Roemer, 1973). In 1970, the International Labour Office and the World Health Organization decided to convene a Joint ILO/WHO Committee to examine the present situation of health care and social security. As an outcome of this important deliberation, the final report concluded, as earlier mentioned, that "where a social security system and a public health system for the provision of personal health care operate separately, ways should be sought of achieving maximum co-ordination between them“ (WHO, 1971). To achieve this, the Committee recommended that interdisciplinary studies should be encouraged to determine appropriate methods for promoting the co-ordination of personal health services with social security.

The brief review made so far of the existing organizational structure of medical care schemes in the developing regions of the world leads us to conclude that no two countries have adopted exactly the same pattern of health service organization, although in almost all developing countries social security medical care schemes have shown a tendency to co-ordinate with public health programmes. A successive series of international meetings and publications on social security medical care have induced many national governments to take measures leading to co-ordination between social security and public health programs in order to obtain coherent planning and to avoid duplications and waste in the use of scarce health resources. Countries can be identified according to the degree of co-ordination existing

between the social security system and public health agencies, ranging from broad separation through moderate co-ordination to complete integration.

Several Latin American countries such as Mexico and Guatemala can be cited as examples where there is a complete independence of social security and public health systems. Countries like India and Tunisia, on the other hand, offer examples of moderate co-ordination. Another example of moderate co-ordination would be Korea, where the social security agencies do not have their own hospitals and personnel and the Ministry of Health and Social Affairs is responsible for both health and social security matters. Some countries have managed to integrate the organization of all health services, for instance, the medical aided through social security systems. In Chile, for instance, the medical services of the social security system are wholly controlled by the Ministry of Health. In this connection, one study report cited previously notes that "the results are good where one ministry is responsible for both health and social security. In these circumstances a unified programme can be achieved even if it is implemented by a separate organization" (WHO, 1971).

The challenge faced by most developing countries is to achieve co-ordination in the delivery of health services, even if funds are derived from multiple sources. The role of health services in developing countries is currently undergoing rapid changes under the influence of progress in medical technology and of socio-economic development. These factors have changed the focus of health in development processes. There is a growing awareness that health is both a cause and an effect of socio-economic development and that health is an important component of the modernization process.

The generalization that can be drawn from experiences of social security health care systems in developing countries is that too much is being spent on episodic curative care in expensive hospitals in urban centres, while coverage in the countryside is

extremely limited. Thus, present health policies are not only inefficient but also inequitable in most developing countries.

The focus of future policy, therefore, should be directed to correcting this bias by extending the coverage of the primary health care in the rural community and by increasing the responsiveness of existing health centres and district hospitals to the needs of the primary health worker (H. Mahler, 1974). Recently, several countries have initiated primary health service programs that rely more on low levels of technology and focus broadly on preventive measures aimed at controlling the incidence of disease rather than exclusively on curative care services in hospitals (Ha Cheong Yeon, 1981; V. Djukanovic and E.P. Mach, 1975). It is generally agreed that the preventive approach to health care can reach more people at a lower cost. According to a world Bank report published in 1979, for example, a health care system based on preventive rather than curative medicine could serve the entire Brazilian population without further increase in total health expenditures (The World Bank, 1979).

The time has come for each developing country to take a fresh look at the priority health problems and at alternative approaches to their solution. Some countries may need to make drastic reforms, but others may only need slight modifications in their existing organization of health services. Every country, however, has to evolve its own methods, based on its own social, political and economic circumstances. The important question is, then, in what way the social security system can contribute toward extending the health care coverage of the population in the countryside and, at the same time, providing more health promotion activities and preventive services. Co-ordinated planning at the community level will make it possible to link primary health services closely with social security schemes in joint efforts for socio-economic development. One of the most notable primary health care programmes has been developed in Brazil. The program for Interiorization of Health and Sanitation Actions (PIASS) in north-east Brazil emphasizes preventive and simple

curative medicine at the community level with a well-developed arrangement for referral of more complicated cases to health posts and district hospitals (The World Bank, 1979).

In Korea, potentially successful social security programs designed to meet basic health needs in the countryside have been set up on an experimental basis in three rural community areas. In order to provide health services to farmers, self-employed persons and others who are not currently covered by medical insurance programs, the government has recently initiated primary health care programs integrated with social insurance medical care schemes in three rural communities (Economic Planning Board, 1981). All residents living in these areas where "community health programmes" were developed and tested by the Korea Health Development Institute over the past several years are now eligible for medical insurance benefits. Basic features that will play a real part in this innovative program are the improved coverage of basic health services, the mobilization of financial resources, the deployment of middle-level health workers, the maximum utilization of public health centres and posts and, of course, community participation (Korea Health Development Institute, 1980; Ha Cheong Yeon, 1981).

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Ⅵ. The Organization, Financing, and Cost of Health Care

1. Introduction

Although health conditions in developing countries have improved considerably in recent decades, the provision of health care is one of the most pressing problems facing many of those countries. A number of these countries have given health care high priority in their development programs. General concern for the health of the people is, of course, nothing new. What is new is the extent of the awareness that health is one of the important dimensions of national progress and that its improvement requires a concerted effort in all areas of development. Health programs, therefore, should not be isolated efforts, but should instead form part of a broad socio-economic development program designed to improve the general welfare of the people.

Health now constitutes an essential element of the socio-economic development policy in Korea. For the first time, Korea is actively engaged in major health sector planning aimed at improving the organization, delivery, and financing of health care. President Park Chung Hee stressed the importance of expanding the accessibility of health care services to the poor, by stating that health care is the 'fourth basic necessity of life' along with food, clothing, and shelter. A new national health planning strategy has been incorporated in the creation of the National Health Council, the National Health Secretariat, and the Korea

Health Development Institute. The ultimate objective of these sector planning efforts is to provide access to adequate medical care to the entire population, regardless of income, age, or place of residence. A related objective is the provision of quality medical care with reasonable efficiency.

Providing health care presents mounting problems for resource allocation. In Korea, where claims on resources are keenly competitive, it is particularly important that health resources be used to maximum social and economic advantage. Simply providing more resources for health care development does not necessarily ensure the desired improvement. Substantial changes will first have to take place in the organization, delivery, and finance of health care. Attention has recently been focused on the effects of rising medical expenditures on consumers and on society as a whole. The cost of health care has been soaring and this dramatic increase has placed such care beyond the reach of many individuals. In order to make health care services more readily available to needy persons, the financial barriers must be reduced. Many of the health problems prevailing in Korea, of course, cannot be completely solved by reducing the financial barriers to health care. Adequate incomes for all, better housing and sanitation, improved water supplies, and better health education are all required. However, making health services more accessible to those in need is an important advance. In this respect, the enactment of the new medical insurance law on December 22, 1976 represents another decisive landmark in the history of Korea's social legislation. With the enactment of this law, the government has taken a major step towards achieving a comprehensive social security system in Korea.

This study is concerned with the financing of health care. The approaches to health care finance are varied and range from strictly private insurance to government-sponsored social insurance. The choice of a financing method, however, does not mean the selection of a total package. It is worth considering the desirable features of various systems. Thus, it is essential to carefully

examine and evaluate the comparative advantages of various financing mechanisms in terms of number of persons and types of risks covered, incentives toward over-or under-utilization of health resources, costs relative to benefits, and administrative feasibility. It was the recognition of this fact which led this investigator to visit several advanced industrial countries (Great Britain, Belgium, Switzerland, Sweden, the United States of America, and Japan) in order to study their health care systems and financing mechanisms. This trip provided a substantial base of information for analyzing and clarifying the basic health finance issues and choices for Korea.

The major objectives of the present study are: to review health needs and methods of financing in Korea; to examine the distribution of benefits and costs associated with the new social health insurance scheme; to analyze how successful the scheme is likely to be in meeting national health goals; and, to assess how the scheme would affect particular groups such as rural residents, the poor, self-employed workers, and workers employed by small marginal firms.

This report is organized into five sections. Section Ⅱ highlights the major issues and problems in health policies, discussing Korea's current health status and needs, as well as the development of a health care system in light of the rapidly changing demographic and socio-economic characteristics of the nation. Section Ⅲ provides estimates of national health expenditures and represents the first such attempt in Korea. In addition, the section discusses the various methods of financing health care services in Korea. Section Ⅳ evaluates the national medical insurance system, incorporates a description of the newly enacted law, and gives an indication, it presents actuarial estimates for the scheme. Finally, the fifth section presents an overall assessment of the medical insurance system and summarizes the conclusions and major recommendations emerging from the present study.

2. Issues and Problems in Health Policies

1) Health Status

Health conditions in Korea have improved considerably during the past decade. This is mainly attributable to the rapid rate of economic development achieved by Korea since the early 1960s. Economic development has been accompanied by rising food intake and consequently a mitigation of the disease and illness related to dietary deficiencies. Substantial investment in water supply systems, sewage disposal facilities, and housing improvements accompanying the rapid economic growth has had a generally favorable impact on health status by reducing the incidence of both water-born diseases and crowding. The past efforts on the part of the Korean government to improve the health status of its people may also have resulted in health conditions that are superior to those of other developing countries in the world.

Table Ⅵ-1 presents several relevant measures of health status and health resources for Korea and other selected countries for which data are available. The table suggests that there is a marked association between the level of income in a particular country and its health status. Advanced countries such as the United States and Japan, where living standards are considerably high, report the highest levels of health. As may be expected, Korea lags for behind the United States and Japan in terms of Health status indicators and health resources. However, the table shows that the general health of Koreans compares favorably with other developing countries in Asia. Take, for example, the case of life expectancy.[9] Life expectancy at birth is estimated to be

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9) Life expectancy is considered one of the most reliable measures of health status available. Although this measure does not take nonfatal diseases into account, it is closely correlated with many forms of morbidity and debility, and therefore provides critical information regarding the range and intensity of health problems. See World Bank, Health Sector: Policy

68 years for Korea, compared with less than 50 years for Indonesia and 58 years for the Philippines. Crude deaths per 1,000 population were 7.0 for Korea. By comparison, Indonesia reported 18.9 and India, 16.3. Data on infant mortality are also relevant, as they refer to a segment of population most vulnerable to health hazards. For Korea, the number of deaths among children under one year of age per 1,000 live births in 1973 was 38. This may be compared with 62 for the Philippines and 139 for India. It should be noted, however, that infant mortality rates are much lower in Thailand and Taiwan.

Table VI-1. Health Indicators in Selected Countries, 1973

Country	Crude Birth Rate/1,000 People	Crude Death Rate/1,000 People	Life Expectancy	Infant Mortality/ 1,000 Live Births	Population per Hospital Bed	Population per Physician
India	41.1	16.3	49.2	139	1,612	4,805
Indonesia	44.8	18.9	45.4	125	1,724	26,367
Japan	19.2	6.6	73.3	12	96	777
Korea	24.0	7.0	68.1	38	808[1)]	2,207
Malaysia	39.0	9.8	59.4	38	380	4,347
Philippines	43.6	10.5	58.4	62	855	9,097
Taiwan	26.7	10.2	61.6	18	2,941	3,224
Thailand	43.7	10.4	58.6	23	847	8,397
United States	16.2	9.4	71.3	19	135	562

Note : 1) The Wold Bank source cited above lists the figure 1,923 which apparently excludes private facilities with less than 50 beds even though they provide inpatient services. If these private clinics are included, the ratio becomes 808 instead of 1,923. We feel it more relevant to report inpatient beds.

Sources: World Bank, *Health Sector: Policy Paper*, Washington, D.C., March 1975, pp.72～75 and pp.78～79; U.S. Bureau of the Census, *Statistical Abstract of the United States: 1976*, Washington, D.C., 1976; Ministry of Health and Welfare, Kosei Hakusho(*White Paper on Welfare)*, Tokyo, 1974; and Ministry of Health and Social Affairs, *Major Statistics of Health and Social Affairs*, Seoul, 1977.

In addition, in terms of health resources Korea also compares favorably with the other Asian developing countries as shown in

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Paper, Washington, D. C., march 1975, p.6.

Table VI-1. There is one inpatient bed for every 800 persons in Korea, compared with one for nearly 3,000 residents in Taiwan and one for 1,700 persons in Indonesia. A physician in Korea serves about 2,200 persons, whereas there is one physician for about 9,000 persons in the Philippines and one for 8,400 persons in Thailand. Note that the data shown in Table VI-1 are aggregate data pertaining to countries as a whole and do not show the distribution of health resources and health development among different regions and among different segments of each country's population. They also reveal nothing about the availability of services relative to needs or, for that matter, about the quality of the services available.

Table VI-1 presents several relevant measures of health status and health resources for Korea and other selected countries for which data are available.

A comprehensive assessment of health status requires knowledge not only of life expectancy and death rates, but also of the pattern of morbidity. Although the Korean health situation in terms of the mortality rate and life expectancy compares favorably with those of most other developing countries in Asia, there is a substantial problem of morbidity. According to the results of recent interview surveys regarding the prevalence of morbidity, between 17 and 36 percent of the population suffered an activity restricting illness during the month of the survey (Ok Ryun Moon and Jae Woong Hong, 1976). The unusually high prevalence rate of 36 percent was found in a rural village of Koje Island and the low rate of 17 percent in Seoul. Prevalence rates are highest among children under 5 and adults over 40 years of age. For the 50～59 age group, almost 30 percent suffered from some form of illness (Jong Huh and Ok Ryun Moon, 1975). Women usually have a much higher prevalence rate than men.

Another critical aspect of morbidity relates to days of activity restriction and the causes of incapacity. Studies conducted recently suggest and activity restriction per patient

ranging from 1.9 days to 9.6 days a month. This wide variation is probably due to the lack of consensus regarding the definition of the terms used in different surveys (Ok Ryun Moon and Jae Woong Hong, 1976). Part of this variation, however, may reflect the diversity of health conditions in Korea. The rural poor usually experience significantly more disability than the urban dwellers due to socio-economic and environmental differences. Examining the causes of general morbidity, we find that digestive and respiratory diseases are the most common, reflecting problems of environment and sanitation. The prevalence of these diseases is somewhat seasonal, with the former more important during the summer and the latter more prevalent during the winter. Diseases of the skin, ear, and throat are also quite prevalent.

2) Demographic Characteristics and Health Needs

While Korea's rapid economic growth has had positive effects on the health conditions in Korea, it has also created certain problems. Adverse environmental conditions and other imbalances in the society have arisen, which have significant implications for the accessibility to health services of certain segments of the population, i.e., the poor, the rural residents, and the aged. These problems to a great extent have been brought about through the pervasive shift in population from rural to urban areas accompanying Korea's rapid rate of economic growth during the past two decades.

Table Ⅵ-2 highlights the magnitude of the population shift which has taken place over the last two decades. As is evident from this table, Korea has rapidly been transformed from a predominantly agricultural rural nation into one whose population is now almost equally divided between urban and rural dwellers. Rural population as a percentage of total population declined from 75.5 percent in 1955 to 66.5 percent in 1966, and further to 51.6 percent in 1975. At the same time, Korea experienced a very rapid growth of population in urban areas. Between 1955 and 1975, the total population increased by 13 million, but about 87

percent of this increase in total population occurred in the cities. The greater part of this urbanization is in the metropolitan areas of the big cities. In 1975 Korea had 28 cities with more than 100,000 population and an additional 7 cities with population in excess of 50,000. Over 48 percent of the people lived in these 35 cities (Economic Planning Board, 1975). Urban areas are expected to continue to grow in the future although the rate of increase should slow.

Table VI-2. Population by Urban and Rural Residence, 1955～75

(Unit: %)

Year	Total	Urban	Rural
1955	100.0	24.5	75.5
1960	100.0	28.0	72.0
1966	100.0	33.5	66.5
1970	100.0	41.1	58.9
1975	100.0	48.4	51.6

Sources: Economic Planning Board, *1970 Population and Housing Census Report*, Vol.1, 12-1, Seoul, September 1972, p.406 and *Advance Report of 1975 Population and Housing Census of Korea*, Seoul, December 1976, pp.321～322.

This dramatic shift in the distribution of population has been accompanied by widening differences in the socio-economic characteristics of the rural and urban populations. Table VI-3 presents data pertaining to age distribution, educational attainment, and employment status of the rural and urban populations. This table reveals that the age composition of the rural population is more heavily concentrated in the younger and elderly age groups than that of the urban population. Thus, of the total urban population only about one-third are children under 15 years of age, while in the rural population the proportion is over 41 percent. Similarly, 7 percent of the rural population is made up of aged persons (60 years of age and over), compared to only 4 percent in the case of the urban population. The dependency ratio is thus much higher in the rural than in the urban areas.

Table VI-3. Selected Socio-Economic Characteristics of Urban and Rural Population, 1975

(Unit: %)

Items	Urban	Rural
Age Distribution of Population		
Percent 14 Years or Below	35.2	41.2
Percent 60 Years or Over	4.2	7.0
Dependency Rations[1)]	1,137	1,385
Educational Level[2)]		
Percent Illiterate	4.3	12.0
Percent High School Graduates	11.7	4.0
Employment		
Labor Force Participation Rate	62.7	52.2
Percent Self-employed	26.5	42.1

Notes : 1) Figures refer to the ratio of dependents (those under 20 years of age plus 60 years and over) to 1,000 nondependents (20～59 age group).
2) Refers to 1970.

Sources: Economic Planning Board, 1970 *Population and Housing Census Report*, Vol.1, 12-1, Seoul, September 1972, pp.162～185, and *Advance Report of 1975 Population and Housing Census of Korea*, Seoul, December 1976, pp.24～26, and *Annual Report of the Economically Active Population*, 1975, Seoul, September 1976, p.27 and p.52.

For the nation as a whole, persons 60 years of age and over accounted for 5.7 percent of total population in 1975. But the increase in life expectancy, combined with the gradual maturing of the age distribution of the nation's population, will further increase the proportion of the population who are 60 years of age or over. The proportion of persons aged 60 and over is anticipated to increase from 5.7 percent in 1975 to 7.5 percent by 1990. This growth of the aged population will have significant implications for health services (For the projection of population through 1990, see Dai-Young Kim, *Population Projection in Korea: 1960～2040*, Seoul: Korea Development Institute, July 1975).

Perhaps more importantly, the educational levels of the population differ significantly between those living in cities and rural villages. In urban areas only 4.3 percent of the population is illiterate, compared with 12 percent in rural areas. About 11.7 percent of the urban population is composed of high school graduates, while the proportion of rural population graduating from high school is only 4 percent. The labor participation rate of the rural population is relatively lower (52.2 percent) than that of the urban population (62.7 percent). Rural residents are largely self-employed family workers and are, therefore, subject to seasonal fluctuations.

These data reveal that the rural population has not shared equally in Korea's economic progress. A high proportion of the rural population in Korea consists of the young, the old, and the under-educated, many of whom lack a basic knowledge of sanitation and health care, including the ability to perceive illness and disease. Most of the rural population are engaged in farming either as self-employed or as family workers. Only a small number of them are considered regular wage and salary workers. Clearly, persons living in rural areas are in the greatest need of health services. Yet these very resources are predominantly concentrated in urban areas.

3) Health Care System

The pattern of the health care system of any country results from complex historical development in which socio-economic forces generate new programs to meet specific needs at different times. These needs arise in relation to particular population groups, particular diseases, particular services, or particular regions found in the country. The development of the health care system in Korea likewise reflects the complex social, economic, and political environment of the country. The current health care system in Korea is more a collection of bits and pieces (with overlaps, neglected areas, and wasted effort), than an integrated system in which needs and the allocation of resources are closely

coordinated.

The organization of health care delivery is noticeably underdeveloped in Korea. The predominant pattern of medical care by physicians is a sole, fee-for-service practice in urban areas. Group practice is almost nonexistent. Medical school education tends to emphasize a high degree of specialization, thus limiting the number of physicians available for primary care. The bulk of health services are supplied through the mechanism of the free market. The expansion of the health care delivery capacity in the past has relied almost entirely on increasing hospital beds in the private sector. The private sector absorbs a substantial portion of Korea's health resources-hospital facilities and health manpower.

As shown in Table Ⅵ-4, inpatient beds in private hospitals and clinics represented 73 percent of all hospital beds available in the nation in 1975. Private sector health services are operated within a competitive market system with an eye for profit and are largely confined to the major urban centers, where medical science than the urban population. The difficulties of transportation and communication and the scarcity of health resources contribute to the lack of medical services in rural areas. It is estimated that almost 83 percent of physicians and 87 percent of the medical facilities are concentrated in urban areas. In comparison, only 48 percent of the nation's population reside in urban areas (Economic Planning Board, 1976). Whereas the nation's two largest cities, Seoul and Busan, held one-third of the total population, more than one half of the health professionals excluding midwives, practiced in either of these two cities in 1973 (Kong-Kyun Ro and Mo-Im Kim, 1975). Thus, the gross imbalance in the distribution of health resources between urban and rural areas is a problem of enormous magnitude in Korea. Because of it, roughly 40 percent of the people in rural areas are not treated at all when ill (Jong Huh and Ok Ryun Moon, 1975).

Table VI-4. Hospitals and Clinics, 1975

	Number	(%)
Hospitals and Clinics	6,171	100.0
Public	62	1.0
National	17	0.3
Provincial and Municipal	45	0.7
Private	6,109	99.0
Hospitals	115	1.9
Clinics	5,994	97.1
Beds	40,719	100.0
Public	11,005	27.0
National	6,931	17.0
Provincial and Municipal	4,074	10.0
Private	29,714	73.0
Hospitals	11,434	28.1
Clinics	18,280	44.9

Source: Ministry of Health and Social Affairs, Bureau of Medical Affairs, *Fourth Five-Year Economic Development Plan*, August 18, 1975, p.3.

The poorer segment of the population has little in the way of health care available to them, except on a public assistance basis in general hospitals run by the city governments. Even there, the opportunities for free treatment are extremely limited. Such hospitals are often inadequate because of insufficient financing, and the quality of medical services provided is far from satisfactory. Provincial or municipal hospitals are supposed to care mainly for persons who cannot afford to pay for their hospitalization. However, only a small proportion of their beds are estimated to be occupied by nonpaying patients.

This is due to the fact that because of insufficient financial support from the government most public hospitals have to cover a large part of the cost of their operation by admitting paying patients. The tendency in recent years has been for the proportion of paying patients to increase. In spite of their scarcity, hospital beds are underutilized in the nation as a whole.

A 1973 hospital survey conducted by the Korean Hospital Association indicated that government hospitals averaged an occupancy rate of 48.7 percent, while the mean occupancy rate for private hospitals averaged between 55.4 and 61.0 percent (Dal Sun Han and Jae Yong Park, 1977). The same survey also revealed that hospitals located in Seoul averaged an occupancy rate of 69.7 percent, compared with only 34.1 percent in rural areas. Two consequences of the gross underutilization of hospitals are inefficient levels of operation and a concomitant waste of scarce resources. There are several factors contributing to the underutilization of hospital facilities, the most important of which is the inadequate appropriation of money for public hospitals by the government and the lack of purchasing power on the part of the population. In other words, the medical care needs of the population cannot be translated into effective demand. Another reason for the underutilization of hospitals may be that a large proportion of the Korean people use drug-stores as their primary source of medical care.

Another aspect of the inefficient utilization of health resources is that physicians are also underutilized, especially in large urban areas. A 1976 survey of clinics by the Korean Medical Association shows that an overage private clinic in a large urban center received 12.5 patients per day, in comparison with 17.9 patients in small-medium cities and 13.9 patients in rural areas (Korean Medical Association, 1976). For the nation as a whole, physicians in private clinics average approximately 15 patient visits per day. This compares with an average of 50 patient visits per physician per day in the United States. Thus Korean physicians are considerably underutilized. The concentration of physicians in large urban centers and their consequent underutilization represents an inefficient allocation of the nation's scarce and expensive health manpower resources. The preference of physicians to locate in urban as opposed to rural areas also contributes to both the maldistribution and the inefficient utilization of expensive resources.

Public sector health services in Korea include health care schemes at a number of levels. The Ministry of Health and Social Affairs, which is responsible for broad health policy coordination, is engaged in a wide range of activities including supervision and extension of services for the prevention and treatment of diseases and the control of environmental sanitation. It is also responsible for licensing all health practitioners, supervising the manufacture and distribution of drugs, and approving hospitals and clinics. The Ministry of Home Affairs, on the other hand, is responsible for financing and operating, through local governments, a network of provincial and municipal hospitals and health centers. Hence, while the Ministry of Health and Social Affairs is responsible for broad technical supervision, the Ministry of Home Affairs has responsibility for budgeting and operating a geographic network of health facilities at the provincial and local government level.

Also, the Ministry of Education has the authority and administrative responsibility for the universities and other institutions training health professionals and other types of health manpower. Finally the Economic Planning Board has overall responsibility with respect to planning and resource allocation policies for the nation. Thus, there is an absence of centralized responsibility and control over agencies and institutions whose activities are vital to the successful formulation and implementation of national health policy. Fragmentation of responsibilities and authority among ministries has often resulted in inefficiency and waste in the management of health services in Korea.[10)]

Until July 1, 1977, Korea had almost no existing financial mechanisms for risk pooling. Not only is the public role in financing health care very limited, but there are no private health

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10) The establishment of National Health Council in 1976 with the leadership of the Economic Planning Board and other relevant ministries is expected to provide an effective forum for policy coordination, planning, resource allocation decisions, and implementation for the health sector.

insurance carriers. In 1975, for example, only 16 billion won was spent for health care services under various social security programs including social insurance, public health, public assistance and welfare, and veterans relief programs. This amount represented only 25 percent of total social security expenditures in Korea (see Table Ⅵ-8). As of 1976, only about 67,000 people including workers and dependents were covered by a total of eleven government sponsored health insurance schemes. Four of these were employer groups and the remaining were community-based insurance cooperatives. Thus, risk pooling mechanisms were virtually nonexistent in Korea until July 1, 1977 when the new medical insurance program was put into operation.

But the problem of health care in Korea is far more complicated than simply providing more hospitals and physicians. It is true that increased numbers of hospitals and health manpower will be needed in future years. However, substantial changes will also have to take place in the organization, delivery, and financing of health care. The present organizational structure of the health care delivery system in Korea is inefficient and inequitable. The organization of health care has not kept pace with either advances in medical technology or with the changing needs of the society. Our goal in health is thus to narrow the gap between the potentialities of modern medical science and the availability of health services by facilitating access to adequate medical care for all Koreans, regardless of their economic and social status.

3. Expenditure and Financing of Health Services

1) Health Expenditures and Consumer Behavior

The introduction of health insurance has profound implications for the nation's allocation of health resources. Consequently, one would expect that the first concern of a nation contemplating

such a system is to assess the magnitude of resources that can be committed to health care.

Our estimates show that Korea spent approximately ₩241.2 billion ($499 million) for health services in 1975.[11] Table VI-5 shows that this amount represented an annual increase of ₩48.8 billion or 25 percent over 1974. The growing national commitment to health is demonstrated by the fact that health expenditures increased faster than the gross national product even in a period of rapid economic growth. The amount spent for health purposes in 1975 equaled 2.7 percent of the nation's output of goods and services, compared with 2.5 percent in 1970. National health expenditures, as defined here, include payments to hospitals, physicians and other health professionals, as well as the cost of drugs, medical research, health facilities and other appliances. Given that part of the above-mentioned national health expenditure of ₩241.2 billion was made for public health and family planning, the amount left for the provision of medical care was much less.

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11) This total does not include medical expenditures incurred by private companies and industries. No data are available on this. However, based on the assumption that firms spend approximately 10 percent of their welfare expenditures on medical services, we estimated that industries spent about 3.9 billion won in 1975. If this amount is included, the national health expenditures in 1975 will be ₩245.1 billion instead of ₩214.2 billion. For the welfare expenditure data of private firms, see Bank of Korea, Financial Statements Analysis for 1975, June 1976.

Table VI-5. Estimated National Health Expenditures, 1970～76

(Unit: billion won)

Items	1970	1971	1972	1973	1974	1975	1976
Public Expenditures[1)]	10.6	14.7	16.5	18.0	22.2	32.7	57.3
Central Government and National Hospitals	4.7	7.3	7.6	8.1	10.3	15.0	34.4
Local Government	5.9	7.4	8.9	9.9	11.9	17.7	22.9
Private Expenditures	53.3	64.9	89.6	111.2	168.1	206.0	271.4
Personal Consumption Expenditures	53.3	64.9	89.6	111.2	168.1	206.0	271.4
Others	0.7	1.0	1.2	1.5	2.1	2.5	2.6
Associations and Institutes[2)]	0.7	1.0	1.2	1.5	2.1	2.5	2.6
Total Health Expenditures	64.6	80.6	107.3	130.7	192.4	241.2	331.3
GNP	2,589	3,152	3,860	4,902	6,747	9,080	12,109
Population(thousands)	31,435	31,828	32,360	32,905	33,459	34,681	35,875
Health Expenditures/GNP(%)	2.5	2.6	2.8	2.7	2.9	2.7	2.7
Per Capita Health Expenditures(won)	2,055	2,532	3,316	3,972	5,750	6,955	9,235

Notes : 1) Refers to net expenditure (gross expenditure-intergovernmental transfer).
2) Refer to the Korean National Tuberculosis Association, Korean Family Planning Association, Korean Institute of Family Planning, and the Korea Association for Parasite Eradication.

Sources: The Republic of Korea, various issues of *Revenue and Expenditures Statement* and *Budget: 1977;* Ministry of Home Affairs, various issues of *Financial Abstract of Local Government;* and Office of Labor Affairs, *The Industry and Labor*, VIII, September 1974, pp.92～93.

Table VI-6 compares the 1975 national health expenditures of Korea, Japan, and the United States. Expenditure is related to both population and gross national product. The average per capita health expenditure in Korea was only ₩7,000 or $14, compared with $195 in Japan and $564 in the United States. The percentage of GNP devoted to health services varies from 2.7 percent in Korea and 4.5 percent in Japan to 8.4 percent in the United States. Thus, broadly, it can be said that the proportion of national income devoted to health services varies somewhat positively with per capita income.

Table VI-6. International Comparison of National Health Expenditures: Korea, Japan, and U.S., 1975

Health Expenditures	Korea	Japan	U.S.
National Health Expenditures (billions)	₩241.3	¥6,477.9	$122.2
Health Expenditures/GNP Ratio (%)	2.66	4.45	8.41
Per Capita Health Expenditures	₩6,955 ($14)	¥57,873 ($195)	$564
GNP (billions)	₩9,080	¥145,446	$1,452
Population (thousands)	34,681	111,934	216,587

Sources: Robert M. Gibson and Marjorie S. Mueller, "National Health Expenditures, Fiscal Year 1976," *Social Security Bulletin*, April 1977, pp.3～22; Secretariat of the Social Security Advisory Council, Prime Minister's Office, *Statistical Yearbook of Social Security*, Tokyo, 1976; and Chong Kee Park and In Chul Noh, "Estimated National Health Expenditures, 1970～75," Seoul: Korea Development Institute, 1977.

It must also be noted that the proportion of national income devoted to health services varies negatively with the indicators of health. In other words, health needs do not determine health expenditure. An international comparison of health data indicates that there is very little connection between national health expenditures and national health needs as reflected by health indicators (Chong Kee Park, 1967). The volume of resources each country devotes to health is determined by its history, cultural values, attitudes, and the level of education. It is also influenced by the political, economic, and social structure of the country.

Of the total amount Korea spent on health in 1975, over 85 percent or ₩206 billion consisted of consumer expenditures. The remainder can be accounted for by central and local governments as well as philanthropic and international organizations. Thus, health care in Korea is financed almost totally by individual consumers on an episodic basis.

Because of their rising standard of living, Korean consumers today are spending more money on medical care than ever before.

In 1960 Koreans spent nearly ₩4.8 billion as aggregate personal consumption expenditures for medical care. By 1970, the total had reached ₩53.3 billion, over eleven times the 1960 total. By 1975, annual expenditure rose to ₩206 billion. Part of this increase is, of course, attributable to price inflation. But even in real terms, private health expenditures have increased substantially over the past 15 years. Underlying the increases in medical spending between 1960 and 1975 has been the rise in incomes. Nevertheless, spending for medical care has increased proportionately more than income. Medical expenditures constituted 2.3 percent of disposable personal income in 1960, then rose to 2.8 percent in 1970 and to 3.2 percent by 1975. Part of the increase in the total volume of medical care spending also stems from the steady growth of the population. But even on a per capita basis, medical expenditures increased substantially from ₩190 in 1960 to ₩1,690 in 1970 and to ₩5,940 by 1975. If these private medical consumption expenditures derived from the national income statistics data are used to estimate the elasticity of health expenditure with respect to GNP, the value for the 1960～75 period is 1.045. On a per capita basis, the elasticity is 1.130. In other words, a one percent increase in real per capita GNP is accompanied by about a 1.13 percent increase in per capita health expenditure over the 1960～75 period. Thus, Korea's health expenditure is only moderately income-elastic (see Figures 1 and 2).

Figure 1. Private Health Expenditure and GNP (Constant Prices)

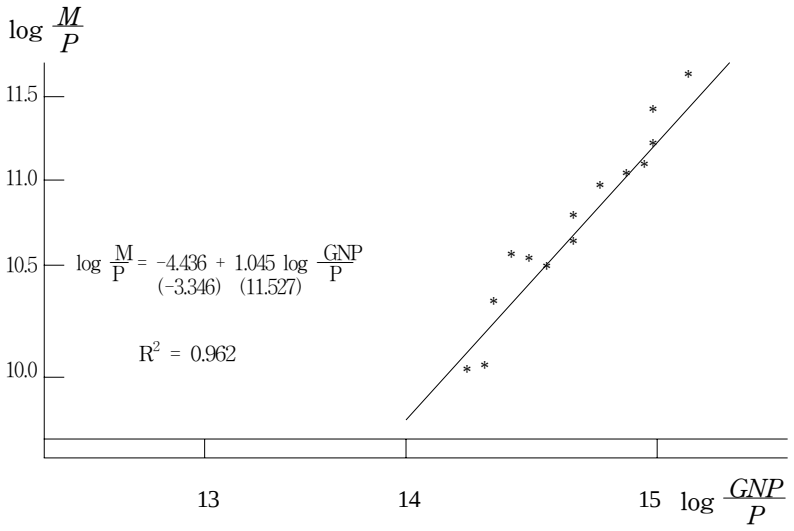
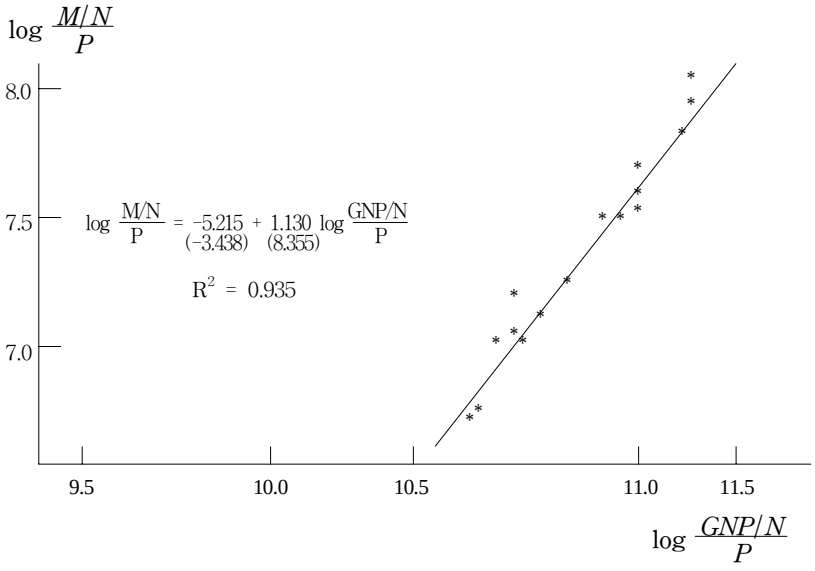


Figure 2. Per Capita Private Health Expenditure and Per Capita GNP (Constant Prices)



Medical care has also become a more important part of the average household's budget and of its level of living, i.e., it has increased as a proportion of all household expenditures by consumers. In 1963 medical care constituted 2.8 percent of each won spent for all consumer items, but rose to 4.1 percent by 1975.[12] For the consumer as a member of family group medical spending usually runs steadily higher when income is higher. Thus urban wage and salary households with low incomes in 1975 spent very little on medical care-₩140 was the average for households with monthly incomes under ₩20,000 and ₩190 for those in the ₩20,000～29,999 group. The average was higher for medium-income households, ₩550 for ₩70,000～79,999, and highest at the upper incomes, ₩1,080 for ₩110,000 and over. The increase in the absolute amount of medical spending resulting from rising incomes has also been accompanied by an increase in the proportion of income devoted to health care. Medical spending accounted for 4.0 to 4.5 percent of the average expenditure of high income families, while for low-income households the figure ranged from 2.7 percent to 2.8 percent (see Appendix Tables Ⅵ-9 and 10).

Korean consumers have been slowly shifting their buying habits in the direction of greater emphasis on medical care. Yet, medical are still ranks very low on their list of priorities. To put the consumer expenditures on health into proper perspective with other consumer activities, we might note that in 1975: (1) for every ₩100 spent on food, only ₩6 was spent on health care; (2) for every ₩100 spent for clothing, ₩27 was spent on health care; (3) for every ₩100 spent on recreation and entertainment, ₩74 was spent on health care; and (4) for every ₩100 spent for cigarettes, ₩89 was spent on health care (Bank

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12) These data are derived from the urban family income and expenditures survey conducted annually by the Economic Planning Board. Rural families usually spend slightly less on family health care - 3.8 percent in 1975. See Ministry of Agriculture and Fisheries, *Report on the Results of Farm Household Economy Survey*, Seoul, 1976.

of Korea, 1976).

Thus, Korea's consumers allocate relatively large proportions of their consumption expenditures for clothing, recreation, and cigarettes, and much smaller proportions for health care. In other words, consumers appear to assign much higher priorities to such consumer activities as smoking, entertainment, and clothing than to health care. The above data relating to patterns of consumer behavior in Korea seem to refute the proposition that health is a goal to be desired above all else. In terms of consumer satisfaction, good health is set aside in favor of the pleasure to be derived from other objects of expenditure.

It is interesting to consider what health care items Korean consumers purchased in 1975. As shown in Table VI-7 below, drugs and drug sundries made up the largest part of the consumers' health bill. Over 57 percent of all health expenditures were for drugs. Nearly 35 percent of expenditures were for physicians' services. Consumers allocated only 8 percent of total health care expenditures for hospital care. These findings are born out by the conclusion of other studies that "pharmacist visits are the undisputed leading source of medical care utilization in urban as well as rural areas. It can be accurately stated that at least fifty percent of the Korean people use drugstores as their main source of medical care" (Ok Ryun Moon and Jae Woong Hong, 1976). This reflects the current Korean health care delivery system. In Korea a significant amount of treatment for acute illness is provided by nonphysicians such as pharmacists, herbalists, acupuncturists, and even shamans.

Table VI-7. Distribution of Urban Household Health Care Expenditures, by Type of Expenditure, 1975

(Unit: %)

Type of Expenditure	Percent Distribution
Drugs	57.3
Physicians' Services	33.5
Hospital Care	8.4
X-Ray	0.7
Total	100.0

Source: Economic Planning Board, *Annual Report on the Family Income and Expenditure Survey*, 1975, Seoul, August 1976, p.108.

2) Methods of Financing Health Care

Health care services are paid for in a variety of ways. The funds are derived from various sources, and they are paid to providers of services through different mechanisms. Broadly, there are six different methods of financing personal health services, each of which has different policy implications: (1) direct purchase by consumers, (2) the charity donation, (3) commercial insurance, (4) industrial support, (5) social insurance, and (6) general revenue support from government taxes.

The question of how health care services are financed has important bearings on national health planning. If the funds are derived from many sources there tends to be a wide dispersion of responsibility and authority; hence, unified planning of health services for the total population is difficult. If there is a heavy concentration of expenditures in one or two sources, it is much easier to achieve comprehensive national health planning.

In many countries most of these methods of financing are used, but in different combinations and proportions. There is, however, a would-wide trend for the first three methods (consumer purchase, charity, and commercial insurance) to assume less importance, and for the last three methods (industrial support, social insurance, and general revenues) to assume greater

importance (World Health Organization, 1971). This trend underscores the rising recognition of societal responsibility for improving health services. Social insurance and private insurance tend to play a much more important role in advanced countries than in developing countries. In West Germany, for instance, over 90 percent of the population is registered in local sickness insurance funds which are regulated by both national and provincial laws (Derick Fulcher, 1974). In Japan almost all nationals are covered by separate public health insurance programs (U.S. Bureau of the Census, 1974). Private health insurance, however, plays the largest role in the United states where persons covered for hospital benefits amount to 77 percent of the population and up to 80 percent of those under 65 years of age (U.S. Bureau of the Census, 1974)

General tax revenues are the major source of support for public health activities in Korea. The role of social insurance in financing health care is very limited, and there are no commercial medical insurance companies in Korea. Private consumer spending is still the major source for financing health services in Korea, but it comes from, and is channelled toward the benefit of a relatively small group of the population in the major urban centers. The prevailing cost of both physicians' and hospital services severely limits access for a great majority of the population.

In Korea health care is almost entirely financed by individual consumers (see Table Ⅵ-5). Specifically, those in the middle and upper income classes finance much of their health care through direct payment. There is considerable private practice in major urban areas. The small percentage of the nation's total population who can afford expensive physician services and hospitals has thus succeeded in diverting a large share of the supply of the medical professionals to care for their needs. This has resulted in great inequities in the distribution of health services. Moreover, self-prescribed drugs are largely paid for by the user. A number of field surveys conducted in the past show

such expenditures to be extremely high. In 1973, for instance, the cost for drug store visits per treated case amounted to ₩1,073. This was equivalent to 63 percent of outpatient expenses in terms of per patient and per treated case. In comparison, medical care at government-run health centers cost only ₩1,012 per case in 1973 (Jong Huh and Young Soo Park, 1973). Obviously self prescribed drugs constitute the major portion of poor or rural household's medical care.

There are a substantial number of hospitals and clinics originally established as charitable institutions to care for the poor. They were initially supported by donations from church groups and other charitable organizations. Korea now has 31 such hospitals which vary in size from 12 to 300 inpatient beds. There are 16 hospitals with a total of 1,094 beds affiliated with Catholic churches and 11 hospitals with an accommodation of 1,565 beds associated with various Protestant churches (Korean Hospital Association, 1972). Because of rapidly rising medical costs, however, most missionary medical projects are currently in serious financial difficulty. Many of these hospitals and clinics operate on a self-supporting basis, and a church or mission agency is able to contribute only a small proportion of the total costs. Many church-related hospitals, therefore, have had to resort to fee increases. As a result, they either primarily serve those who can afford it or must face a decrease in occupancy rates. The emphasis of most mission programs has traditionally been on curative as opposed to preventive medicine. It has often been alleged that mission works are indifferent toward the changing health needs of the general population. This realization has eventually led to the introduction of a new approach to solving the health problems of rural residents. Under the sponsorship of the Christian Medical Commission, a committee of the World Council of churches, the Koje Community Health Project was launched in 1969 for the purpose of providing low-cost preventive health care (John R. Sibley, 1968, 1972).

In Korea the magnitude of industrial expenditures on health

care is insignificant. It is roughly estimated that industries' health care expenditures were approximately 4 billion won in 1975, representing only four-tenths of one percent of their total sales.[13] Nevertheless, the health services of a select group of large corporations are known to be comprehensive and efficiently operated. The Korea Oil Corporation, for instance, has been providing health care services to its employees and their dependents through a government-authorized health insurance program since 1973. The Korea Tungsten Mining Company and the Korea Coal Mining Company are operating a network of company-owned hospitals and dispensaries for their employees. Workers in these and other financially well-off enterprises receive better health care than the average citizen in the country. These health care services "are not provided solely for humanitarian reasons since management believes that healthy workers are more productive and experience less absenteeism than unhealthy workers" (Alan L. Sorkin, 1976). The government requires all large corporations, especially those with foreign ownership, to provide at least minimal health services for workers and to maintain a clinic at each work-place. But only a small number of companies are known to comply with this regulation. As the new medical insurance program become effective beginning July 1, 1977, these insurance provisions are expected gradually to replace independent company financing of health care.

General revenues of the government are used for financing a wide range of medical and health care activities in Korea. As discussed previously, however, support from general tax revenues is not the primary method of financing health services in Korea. In 1976, the central government spent 16.7 billion won for various health related services, accounting for only seven-tenths of one percent of the total expenditures in the central government

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13) This estimate is based on personal interview surveys of officials of a number of companies and on data derived from the Bank or Korea, Financial Statements Analysis for 1975, June 1976. Approximately 10 percent of total welfare expenditures is assumed to be health expenditure.

general budget sector (Economic Planning Board, 1977). The government financing of health care services is expected to increase substantially in 1977 as a result of a newly implemented medical assistance program for the poor. Under the new program, some 370,000 poor persons who do not have the means to pay for health care will get medical treatment at government expense. In addition, 1,726,000 low income people will also receive medical care with the government defraying 30 percent of the cost and providing interest-free long-term loans for the other 70 percent. The government budgeted ₩5.5 billion for this program in 1977.

Currently, the scope of social security in Korea is limited. The social insurance program was first introduced in Korea in the early 1960s and is still in its infancy. At present, Korea has an industrial accident insurance program and social security systems covering civil servants and military personnel. Private school teachers are covered by a separate benefit program which began in 1975. A government supervised voluntary medical insurance scheme is in effect for a limited group of workers as a pilot project. The National Welfare Pension Law enacted in 1973 is scheduled to become effective during the Fourth Five-Year Plan period (1977～81). In Korea, health care trends to play a smaller role in the overall social security system than in other countries in Asia and Latin America. In 1975, the expenditure for health care amounted to 25 percent of total social security expenditures (see Table Ⅵ-8). Compared to health care expenditures, relatively large expenditures are made for various cash and in-kind benefits, such as pensions and public assistance.

The original Civil Servants Pension Act of 1962 covered only long term contingencies such as old age, disability, and death. Subsequent revisions, however, gradually expanded the scope of the program by providing medical benefits for such short-term contingencies as sickness and maternity (Chong Kee Park, 1975). As shown in Table Ⅵ-8, however, the amount of medical benefit payments is still very small, accounting for only

4.3 percent of all benefits paid under the program. The industrial accident insurance program, enacted into law on November 5, 1963, has a twelve-year history in Korea and is generally considered the most successfully operated social security branch in the nation. Over the last twelve years the program has expanded considerably in coverage and in the benefits provided to insured workers. The benefits provided under this program are classified broadly into cash benefits and medical benefits. The program provides full medical and hospital care until complete recovery. The payment for medical and hospital benefits amounted to ₩5,202 million in 1975, representing one half of the total compensation under the industrial accident insurance program. Eleven pilot health insurance programs authorized and subsidized by the government under the 1963 Medical Insurance Law provided in 1975 a total amount of ₩172 million as medical benefits to persons covered by these programs. This amount represented only 1.1 percent of the total social security health expenditures in 1975.

Table VI-8. Health Care and Social Security Expenditures in Korea, 1975

(Unit: million won)

Program Category	Social Security Total(A)	Health Care Component(B)	(B)/(A) (%)
Social Insurance	33,921	5,998	17.7
Civil Servants Pension	13,886	602	4.3
Military Personnel Pension	9,402	*[1)]	-
Medical Insurance	172	172	100.0
Industrial Accident Insurance	10,380	5,202	50.1
Private School Teachers Pension	81	22	27.2
Public Health	9,563	9,563	100.0
Public Assistance and Welfare	6,171	*[2)]	-
Veterans Relief	14,438	461	3.2
Total Expenditures	64,093	16,022	25.0

Note : 1) Included in veterans relief.
2) Included in public health

Source: The Republic of Korea, *Revenue and Expenditure Statement: 1975*, June 1976 and various other government sources.

4. Assessment of the New Medical Insurance System

The Medical Insurance Law of 1963 was the basis for operating eleven government-authorized pilot insurance programs, four of which were employer-sponsored insurance associations while the remaining seven were nonprofit community insurance cooperatives primarily for self-employed workers. As of 1976, only 15,300 workers and 51,700 dependents in eleven groups were covered by this insurance scheme. In addition, there were 17 other medical insurance associations operated independently without government approval and subsidies. These 17 associations had a total of over 160 thousand members.

On December 22, 1976, however, the government enacted Law No. 2942 which drastically amended the original Medical Insurance Law of 1963. In order to make use of the available medical resources, the law established a new social insurance scheme aimed at pooling the resources of a wider segment of the population. The scheme will assist in the financing of medical care, but it does not improve the supply of medical services per se. However, over the long run the supply may increase in response to an enlarged effective demand. The ultimate objective of this program is to improve national health and enhance social security by facilitating access to medical care in the event of illness, injury, childbirth, or death (See Article 1 of the Medical Insurance Law of 1976). With the enactment of this law, the government of Korea has taken a major step towards enhancing the welfare and the productivity of its people. The law itself provides the promise of further improvement.

The new law establishes a two-part medical insurance program including: (1) a plan requiring employers with 500 workers or more to offer specified medical insurance for their employees and their dependents (Class I insured) and (2) a voluntary community-based health insurance plan providing medical insurance for all others (Class II insured). The insurance program is administered by the health insurance associations

established for the workers in enterprises and industrial parks, and in the case of self-employed and others (Class II insured) by the administrative districts of counties, cities, and towns.

An attempt will be made in this section to discuss and evaluate the major features of the new medical insurance system. The following are some of the important questions to be probed concerning the new system of financing health services. How adequately will the medical needs of population be met? How will the system be financed? How much will patients share in the costs? What role will the government play? Will charges and fees be regulated and if so, by whom?

1) Coverage of the Population

The first choice to be made in designing any social insurance program concerns the extent of population coverage. The term 'coverage' refers to the persons protected. The ideal goal of a social security program is, thus, to cover all persons regardless of income level, place of residence, type of employment, or age. Basically, this goal of universal coverage rests upon broad principles of social justice. Practical considerations, however, make certain initial limitations unavoidable. To a large extent these restrictions are imposed by administrative and political necessity.

The compulsory medical insurance scheme initially covers persons employed by firms with 500 workers or more. Workers in establishments that employ fewer than 500 persons may, however, be insured voluntarily with the approval of the Minister of Health and Social Affairs. In this event, at least two-thirds of the employees of the firm must consent to form a voluntary association. Self-employed workers and other individuals can obtain voluntary coverage if they join the community health insurance associations. These associations must contain at least 500 households organized within the administrative districts of guns, cities, or towns. Excluded from the system are persons covered by other statutory schemes, such as government employees, members of the armed forces, and private school

teacher.

According to the statistics compiled by the Ministry of Health and Social Affairs presented in Table Ⅵ-9, the mandatory health insurance associations formed at establishments with more than 500 workers and at factories located in 19 industrial estates totaled 486 as of July 5,1977. The number of persons covered by this compulsory system totaled three million, including 1.9 million dependents of insured workers. The total coverage thus amounts to only 9.0 percent of the nation's population. The extent of population coverage, however, varies considerably from province to province, ranging from a low of about one percent in Jeon Nam and Chung Bug to 25.6 percent in Seoul. Also, although the nation's two largest cities, Seoul and Busan, have only 27 percent of the nation's total population, nearly 70 percent of the persons covered by the newly enacted health insurance system are concentrated in these two cities. It is quite obvious from Table Ⅵ-10 that more effort needs to be directed toward extending coverage to the residents of Chung Bug, Jeon Nam and Jeon Bug provinces. Health needs, as reflected by high death rates, are much more critical in these provinces than in others. As is evident from Table Ⅵ-10, the extent of health insurance coverage is more of less inversely related to the death rate.

The mandatory coverage of industrial and commercial workers will soon have to be expanded drastically in order to encompass those persons employed in establishments with less than 500 employees. This is needed in order to prevent the creation of a double standard for persons who are basically in identical legal, social, and economic situations. Such a double standard might emerge if the employees of the larger firms.

It is anticipated that compulsory insurance coverage will be extended to firms with more than 200 employees by 1981. However, there is no reason why compulsory coverage could not be extended to smaller firms sooner. In view of the fact that the workers employed by small marginal firms are more likely to be

Table VI-9. Persons Covered by Medical Insurance System (as of July 5, 1977)

Province	Number of Establish-ments	Number of Associations	Persons Covered (1,000)			1975 Population (1,000)	Persons Covered as Percent of Population (%)
			Employees	Dependents	Total		
Seoul	574	278	615.0	1,144.4	1,759.4	6,879	25.6
Busan	74	70	163.8	227.4	391.3	2,451	16.0
Gyeong-gi	283	40	119.2	173.7	292.9	4,035	7.3
Gang-weon	42	18	20.1	56.2	76.3	1,861	4.1
Chung Bug	28	5	6.0	7.0	13.0	1,521	0.9
Chung Nam	52	16	29.5	42.1	71.6	2,947	2.4
Jeon Bug	47	10	16.6	21.5	38.1	2,455	1.6
Jeon Nam	65	10	16.3	30.4	46.7	3,983	1.2
Gyeong Bug	454	20	69.1	89.1	158.2	4,856	3.3
Gyeong Nam	129	19	104.0	146.8	250.9	3,279	7.7
Total	1,748[1)]	486[2)]	1,159.8	1,938.5	3,098.3	34,269	9.0

Notes : 1) Includes 1,201 establishments located within 19 industrial estates throughout the country.
2) Includes 19 industrial estates based insurance associations.

Sources: Ministry of Health and Social Affairs; and Economic Planning Board, *Advance Report of 1975 Population and Housing Census*, Seoul, December 1976, pp.24～59.

Table VI-10. Health Insurance Coverage and Health Needs

Province	Percent Covered(%)	Death Rate Per Thousand[1)]
Seoul	25.6	3.5
Busan	16.0	2.8
Gyeong-gi	7.3	4.3
Gang-weon	4.1	6.3
Chung Bug	0.9	6.0
Chung Nam	2.4	5.2
Jeon Bug	1.6	5.3
Jeon Nam	1.2	5.3
Gyeong Bug	3.3	4.2
Gyeong Nam	7.7	6.2
Total	9.0	4.3

Note : 1) Includes cities and towns only.

Source: Data on death rate are derived from the Ministry of Home Affairs, *Municipal Yearbook of Korea: 1975*, Seoul, January 1976, pp.82～89

medically indigent than those in large establishments, the extension of health protection to them and their families is most urgent. It is also desirable to bring medical insurance coverage more in line with the National Welfare Pension system which covers enterprises employing 30 workers or more. It may additionally be noted that the industrial accident insurance program also covers workers in establishments employing 16 persons or more. The experiences of foreign countries indicate that the initial efforts of social insurance medical care schemes are often directed toward covering the less fortunate groups of workers. In Japan health insurance originally covered manual workers with earnings below a certain income level working in specified industries for firms with five or more workers. The scheme was gradually extended to cover employees with earnings above this income limit (Social Insurance Agency, 1976). The coverage under the Chilean social insurance scheme of 1924 was also initially confined to relatively low-income wage earners (Milton J. Roemer, 1973).

The expansion of coverage to a large and geographically dispersed group of employees will eventually require the establishment of a government administered program. In addition, such a step would subsequently facilitate the coverage of such under-served groups as the old, the partially employed, casual workers, domestic workers, the urban self-employed, and other urban residents who may not otherwise have access to adequate medical care. A government administered health insurance scheme could also serve as a standard for the contribution rates, benefits, and administration of the individual insurance associations.

The new Medical Insurance Law provides voluntary coverage for self-employed workers such as shop owners, casual workers, domestic workers, and day laborers (Class II insured) (See Articles 6 and 19 of the Medical Insurance Law of 1976). As of July 5, 1977, however, no voluntary medical insurance associations have been organized for self-employed and other workers. It appears that the voluntary-coverage approach will be

less than adequate in providing health care services to self-employed workers. The original intention of the government, with respect to voluntary coverage, may have been to create a device to pool the financial resources of the self employed, especially those located in the rural areas, for the purpose of financing their medical care. To carry out this legislative intent, however, it may be better not to draw the distinction between compulsory employee and voluntary community health insurance associations but rather, between a compulsory urban and a voluntary rural system. Such differentiation would also better reflect the basic difference in available medical resources between the urban and rural areas of Korea.

The difficulties of providing the rural population with the same quality and quantity of medical care as that available to the urban dwellers divide the program, for the time being, into two distinct parts. Until the gap is substantially narrowed, lower contributions and benefits will continue to characterize the rural areas. Experiences from ongoing health demonstration projects, which include voluntary health insurance schemes, indicate the need for continued experimentation. The great variations in income levels, cash flows, general attitudes, and the degree of community participation prevailing in different parts of the countryside, all affect the basic design of a rural health insurance plan (Seoul National University, 1975; Korea Health Development Institute, 1977). It may be premature to settle on any one form of financing rural health care programs at this time. It is desirable to undertake as many experiments as possible until, after careful evaluation, one or two acceptable financing mechanisms evolve. In order to test this hypothesis on the market place, it may be preferable to let the voluntarily insured choose freely among different schemes, instead of freezing them into the ones established in their respective administrative district. In this regard it is interesting to note that the Korea Health Development Institute is expected to develop and experiment with an HMO-type prepaid group practice plan at one of three

demonstration areas (Korea Health Development Institute, 1977).

2) Benefit Structure and Cost Sharing

The new medical insurance law permits broad medical and maternity benefits but, in implementing the program, benefits would be made available in accordance with a medical insurance association plan. In other words, the details of medical benefits could vary from one plan to another. The standard benefits available under the law, however, are as follows; (Article 29 of the Medical Insurance Law of 1976)

(1) medical examinations;
(2) pharmaceutical supplies;
(3) treatment, surgical operations, and any other physician services;
(4) hospitalization, including clinical and maintenance services;
(5) nursing; and
(6) ambulance services.

Each health insurance association may offer (within the 3 percent to 8 percent contribution rates) additional benefits such as funeral allowances and/or cash sickness pay (Article 40 of the Medical Insurance Law of 1976). Insurance for the cost of dental care and medical rehabilitation is left for the future. The law places a limit on the period in which medical care can be provided. The maximum duration of medical care for any illness or injury is six months (Article 30 of the Medical Insurance Law of 1976). While time limits are imposed, authorization can be given for an extension in special cases. This limitation of six months is consistent with the ILO Social Security (Minimum Standards) Convention of 1952 which allows medical treatment to be discontinued after twenty-six weeks. Such a limit is still useful with regard to hospital care. In the case of care given outside hospital, however, the limit tends to be more flexible (ILO, 1970).

The contingency on which medical care benefits are provided is simply the need for it: the health of employees and their dependents should be safeguarded and they should have easy access to a medical facility. Therefore, personal preventive medical care ought to play an important role in the insurance scheme. Maternity benefits are provided to the employee or to the spouse of the employee in the event of child-birth. However, there is no explicit provision for pre-or post-natal care (Article 31 of the Medical Insurance Law appears to limit maternity cases to the actual act of delivery). In view of the fact that prenatal care is known to yield high social benefits because of its impact on reducing mortality and increasing worker productivity, the insurance scheme should meet part or all of the cost of periodic checkups during pregnancy. Preventive medical care is considered the most cost-effective approach to solving health problems. A recent study by the United Nations Children's Fund and the World Health Organization underscores the importance of preventive measures and the health care needs of mothers and children (V. Djukanovic and E. P. Mach (eds.), 1975).

Under the new insurance scheme, the individual medical insurance association pays the physicians, hospitals, pharmacies, and other providers directly for services rendered. Consequently, the patients themselves usually have no direct financial dealings with the providers of medical services except for their share of co-payments. Direct payments are made on the basis of contracts either with hospitals or individual providers. Remuneration is based on a specified fee for each service rendered-a fee-for-service system. The Ministry of Health and Social Affairs has recently announced a standard fee schedule to be used in the insurance system. The newly adopted point system assigns point values to 762 different services performed in clinics and hospitals. The new system lowered the charges for insurance patients by as much as 45 percent of normal charges, In addition to government fixed prices for some 3,000 pharmaceutical items, allowing only a 12-percent margin over factory prices. The resulting price levels

turned out to be some 20 to 40 percent lower than the current prevailing retail prices. In view of the rapid rise in medical costs during recent years, the new government policy will undoubtedly help regulate and contain further increases in hospital fees and charges. But the real success of the new system will depend, to a large extent, upon the basic attitudes and cooperation of the health care industry.[14)]

Virtually all countries with medical insurance schemes provide for some degree of cost-sharing by the patients, usually introduced on the assumption that over-utilization can be discouraged by such charges. Korea is no exception; patients covered by the insurance scheme pay a part of the cost of medical care services. The new medical insurance law provides that the patient share up to 40 percent of the cost of outpatient care services and up to 30 percent of the hospitalization cost. For dependents, cost-sharing is an additional 10 percent (See Article 34 of the Implementation Decree of the Medical Insurance Law of 1976).

The role of cost-sharing is an of the more controversial issues in social health insurance. Its main purpose is to discourage abuses of excessive care. Another purpose is simply to reduce the cost of the plan by shifting a portion of the costs to the patient at the time of sickness. Cost-sharing also reduces

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14) Immediately following the announcement of the new standard fee system by the government, the Korean Hospital Association claimed that they could not provide adequate treatment to insurance patients at such a low standard fee and continue to operate hospitals. They further warned that the quality of medical care for the insurance patients might deteriorate and there would be discrimination in favor of those general patients not covered by the insurance. Two major hospitals in Seoul have already been warned by the Ministry of Health and Social Affairs for charging extra fees for the treatment of insurance patients. In a stern warning to these hospitals, the Ministry said that the hospitals and clinics may be suspended for up to three months, if they are found charging more than the standard fees officially set for insurance patients. See *The Korea Hearld*, July 19, 1977.

the need for administrative control over the use of medical services. The presence of absence of cost-sharing provisions in insurance plans can have a substantial effect on the amount and mix of medical services. A recent study by Newhouse and others in the United States, for instance, estimates that the absence of cost sharing would lead to an increase in demand for ambulatory physician services by approximately 75 percent but that a 25 percent maximum coinsurance plan would increase demand by only 30 percent (Joseph P. Newhouse, 1974; Anne A. Scitovsky and Nelda M. Snyder, 1972). While the patient behavior and demand pattern in Korea might be somewhat different from that prevailing in the United States, this and other studies provide enough evidence that cost-sharing would have significant effects on the operation of a medical care system. It is anticipated that without cost-sharing provisions, the new medical insurance scheme in Korea would lead to a substantial increase in demand for medical services which, if not fulfilled because of the limited supply of health professionals and facilities, would create inflationary pressures and long delays in waiting rooms.

While there are ample justifications for cost sharing, serious questions may be raised about some of its ill effects. Uniform cost-sharing provisions, for instance, fall heavily upon the poor. High patient shares can cause heavy financial burdens for the patient and deter him from seeking needed medical care, thus undermining the major goal of the medical insurance system (Karen Davis, 1975). Cost-sharing provisions in the new medical insurance law raise several questions relevant questions relevant to this issue. How high should patient shares in the cost be? Should they be the same for all patients regardless of income? Should some patients or services be exempt from cost-sharing?

Coinsurance rates set by the new law, ranging from 30 to 50 percent, appear to be too high when compared with those of other countries. The cost-sharing is 30 percent in Japan and 25 percent in Belgium (Derick Fulcher, 1974). In the United

Kingdom some cost-sharing is required for medicine. Cost-sharing is required only for certain in terms such as drugs and eyeglasses in the Federal Republic of Germany. In Ecuador, the only cost-sharing required is for certain types of dental care. The Indian scheme has no cost-sharing requirements, nor does the one in Tunisia (Milton I. Roemer, 1969). Several national health insurance plans proposed in the United States in the last few years offer a coinsurance rate ranging from 20 to 25 percent (U.S. Department of Health, Education, and Welfare, 1976).

The impact of cost-sharing is likely to be greater on low income persons. A family head who barely makes ₩50,000 a month cannot reasonably be expected to pay 40 percent of the cost of medical services amounting to, for example, ₩40,000. However, a person with a monthly income of ₩450,000 may be able to meet the cost-sharing amounts without difficulty. Table Ⅵ-11 shows that the cost-sharing for the same medical treatment amounts to 32 percent of income for persons earning ₩50,000 per month compared with only 3.6 percent for persons earning ₩450,000 a month. Imposition of uniform cost-sharing thus places an extra heavy burden on low income persons and discourages them from seeking needed health care. This is counter to the primary goal of social insurance which is to encourage greater utilization of medical services by the poor. One solution would be to relate any cost-sharing provisions to income and to set ceilings on how much any family would have to pay. While such an approach has obvious merit, it would create complex administrative problems. However, the idea of relating cost-sharing to income level should not be abandoned completely. The present form of cost-sharing should be retained for the time being, with the flexibility to alter the schedule over time as experience is accumulated.

Table VI-11. Cost-Sharing Amounts as Percent of Income, by Income Class

(Unit: thousand won)

Income Level	Medical Care Cost	40 Percent Cost-Sharing	Cost-Sharing as Percent of Income(%)
50	40	16	32.0
100	40	16	16.0
150	40	16	10.7
200	40	16	8.0
250	40	16	6.4
300	40	16	5.3
350	40	16	4.6
400	40	16	4.0
450	40	16	3.6
500	40	16	3.2

3) Source of Finance

The financing of medical care programs follows traditional methods sued by many countries in financing social insurance. Generally. the employer and employee contribute a fixed percentage of wages and salaries, up to a certain ceiling, directly to a program which administers health care benefits for sickness and maternity. Some countries, in addition, provide for a government contribution.

As outlined in Korea's newly enacted medical insurance law, the employer is responsible for paying in a contribution of between 3 and 8 percent of the payroll, with a ceiling of ₩400,000 per month (Article 50 of the 1976 Medical Insurance Law)[15], Half of this contribution must be charged to the employee (Article 51 of the Medical Insurance Law of 1976). The government's contributions to the system are limited to

15) The contributions of the voluntarily insured self-employed workers are to be determined and collected by the (voluntary) district health insurance associations in fixed amounts graduated by family size.

defraying the administrative costs. The contribution rates are actually determined and collected by the employer under the provisions of the by-laws of each individual insurance association. Table VI-12 presents the frequency distribution of contribution rates adopted by 486 compulsory medical insurance associations. Over two-thirds of the associations adopted the legally required minimum rate of three percent, while only twelve associations have rates ranging between five and six percent. No associations have adopted rates beyond six percent, although they are allowed to do so, within a limit of eight percent, under the law. Thus, the weighted average contribution rate of the 486 associations is only 3.27 precent.

Table VI-12. Associations Classified According to Contribution Rates, 1976

Rate	Associations	
	Number	(%)
3 percent	327	67.3
3～4 percent	122	25.1
4～5 percent	25	5.1
5～6 percent	12	2.5
Total		100.0
Weighted Average Rate (%)	486	3.27

Source: Ministry of Health and Social Affairs, Social Insurance Bureau.

Although it is very difficult to make a valid international comparison of social insurance systems (U.S. Department of Health, Education, and Welfare, 1973), it would be interesting to see how Korea's medical insurance contribution rate compares with those of other countries'. As shown in Table VI-13, which lists the source of funds for social medical insurance programs in selected countries in 1975, the combined contribution rate ranges from 3 percent in Argentina and 3.54 percent in Chile, to 8 percent in Taiwan and 7.2 percent in India. The rate, however, goes up to as high as 13 percent in the industrialized countries

of France, Germany, and the United Kingdom. Based on the experiences in selected countries presented in Table VI-13 Korea's average contribution rate of 3.27 percent may thus be considered low. It may also be noted that the equally apportioned rate of contribution between the employee and employer under Korea's medical insurance scheme appears to be somewhat out of line with international practices. In the majority of countries listed in Table VI-13, the employer contributes much more than the employee. Only in West Germany, Japan, and the philippines is the contribution equally shared between employer and employee.

As has been mentioned previously, the government is not expected to participate in financing the medical care benefits under the new law except for small administrative costs. The rationale behind the limited role of government finance is that persons covered by Korea's new insurance scheme are, in general, more favorably situated from an economic point of view than persons who will not be covered, i.e., farm workers, persons employed by small marginal firms, and the self-employed street vendors. Accordingly, a substantial government contribution to the health insurance program now represents a transfer of resources to persons who are economically better off at the expense, in part, of persons who are economically worse off, thus violating the principle of social equity. Furthermore, the government contribution to the scheme must be financed either from general revenue or through additional taxes which would in turn increase the tax burden on the general public.

The provision of the new law which permits each medical insurance association to set the contribution rate within such a wide range as 3 to 8 percent of wages and salaries invites great variations in benefit levels. The compulsory employee scheme alone would make it possible to have 486 different combinations of benefits and contributions for less than 10 percent of the total population. Add to this the schemes involving workers in enterprises with less than 500 employees as well as those for self-employed workers who will be covered by the voluntary

Table VI-13. Financing a Social Security Health Care System, Selected Countries, 1975 (Taxes on Wages and Salaries)

(Unit: %)

Country	Employer	Employee	Government
Argentina	2	1 (if single), 2 (if married)	None
Belgium	3.75[1)]	1.8[a]	27% of Cost of Medical Benefits
Chile	2.54	1	Subsidy Equal to 5.5% of Total Covered Earnings
China (Taiwan)[2)]	6.4	1.6 (self-employed 5.6)	2.4% of Earnings of Self-employed, and Administrative Cost
France	10.45	2.5	3% Surcharge on Automobile Insurance Premiums
West Germany	5~6.5	5~6.5	Cost of Maternity Grants and Benefits for Unemployed
India	4.8	2.4	5% of Cost of Medical Benefits (12.5% for Dependents)
Indonesia	5	2	2%
Japan	3.8	3.8	13.2% of Benefit Costs, and Cost of Administration
Malaysia	None	None	Whole Cost
Philippines	1.25[a]	1.25[a]	1.25%
Singapore	None	None	Whole Cost
Sweden	7.0	None (self-employed, 7.0)	25% of Cost
Switzerland	None	Membership Fees Vary among Funds	Federal Subsidies
United Kingdom[2)]	8.5	5.5	18% of Cost
United States[3)]	0.9	0.9	Cost for Certain Noninsured Aged Persons

Notes : 1) For medical benefits only. Additional contributions are made for cash sickness benefits.
2) Contribution rates also cover old age, invalidity, and death benefits.
3) Medicare program.

Source: U.S. Department of Health, Education, and Welfare, "*Social Security Programs Throughout the World*", 1975, Washington, D.C.: U.S. Government Printing Office, December 1975, p.255.

medical insurance associations with their low level of benefits and contributions, and staggering disparities will result in the coverage of the Korean population. While some of these inequities are unavoidable, for instance between urban and rural systems, others pose serious social and economic problems.

As a result of the general dissatisfaction caused by the poor performance by weak associations, pressure will be applied to upgrade the benefit level from the bottom up and hence there will be an increasing demand for government subsidies for those plans which are unable to meet the higher benefit standards through contributions (Derick Fulcher, 1973).

From the viewpoint of society as a whole, substantial inequalities in health insurance benefits may hinder the inter-firm, inter-industry, and inter-regional mobility of the labor force and thus reduce its productivity. Furthermore, the goal of providing medical protection to all citizens may suffer if persons who temporarily leave the compulsory system are deprived of all or part of their previously earned protection. The important question then is how to hold the differentials in the compulsory part of the program within acceptable limits.

After accumulating some experience with the operation of the new law, careful actuarial studies will have to be conducted to verify whether the rate, commensurate with the benefits as foreseen in the law, lies nearer the lower or the upper limit of the range. For example, the rate is near 4 percent, allowing for a contingency reserve, a uniform rate or at least a narrowing of the range may be desired. Health insurance associations which voluntarily agree to raise the benefit level and hence the contribution rate beyond a future uniform rate should not be discouraged if this is the will of the majority of the insured and of the management. Nor should management be forbidden to assume part or all of the employee contributions regardless of whether this practice results from collective bargaining or unilateral employer action.[16] The latter path may often appear more advantageous to the employer than granting a wage increase.

16) This practice is currently prohibited under the provision of the new law. Article 51 of the Medical Insurance Law of 1976 provides that employer and employee share exactly half of the contribution.

4) Cost Estimates

Making actuarial estimates of any social insurance health care program is a precarious undertaking. It requires accurate predictions of not only the number of persons covered, but also the quantity of medical services demanded and received, the level of reimbursement for providers of services, and the amount of administrative expenses (Karen Davis, 1975). Critical assumptions must also be made with regard to increases in earnings levels as well as for changes in service fees and charges. Miscalculations of any of these elements will result in serious under or overestimates of costs. In the case of Korea, the task is doubly complicated by the fact that there has been no actuarial experience in social insurance health care programs. Moreover, there has been little investigation of the sensitivity of consumer demand to changes in service prices. Despite these reservations, it is important to make an attempt at a rough actuarial estimate.

An initial estimate indicates that the scheme would create a relatively rapid accumulation of surplus funds. This surplus would, of course, be the difference between overall receipts and expenditures. The major component of revenue is contributions and the largest element of expenditure is comprised of medical benefits. The following equation summarizes the working relationship between revenue and expenditure in the system:

$$F = (C+G+R)-(M+B+A)$$

where F : the financial balance of the scheme
C : contribution receipts
G : government subsidy
R : interest earnings
M : medical benefits
A : other benefits
B : administrative costs

The size of the surplus fund (F) thus depends on the relationship between the level of revenues (contributions and

government subsidy plus interest income) and expenditures (benefit payments and administrative expenses). While the contribution is mainly a function of income, benefits are determined by the rate of morbidity and the demographic characteristics of the covered population. The total amount of medical benefit payments is determined by the equation: $M=P\times f\times N$, where P is average price per case, f frequency rate of medical treatment per person, and N number of persons covered.

Table Ⅵ-14 presents the projected revenue and expenditure estimates for the compulsory part of the medical insurance system for each year between 1977 and 1981. The amount of annual receipts including interest accrual on surplus funds is expected to rise from about ₩33,646 million in 1977 to ₩129,809 million by 1981. On the other hand, total expenditures including benefit payments will increase from ₩28,272 million in 1977 to ₩89,622 million in 1981. Annual surpluses including interest earned from invested assets are expected to amount to ₩5,374 million in 1977 and to over ₩40,187 million by 1981. The rate of surplus would thus rise from 16 percent in 1977 to 31 percent in 1981. the importance of the insurance scheme in the national economy can be measured by its relation to GNP. In 1977 when the compulsory scheme became effective, the annual expenditures represented 0.19 percent of GNP, but they are expected to rise to 0.32 percent of a much larger GNP by 1981.

As is evident from the result of the initial actuarial calculations based on the set of given assumptions discussed above, the scheme is expected to build up substantial reserve funds over a short period of time. Unless it is deliberately intended to accumulate reserve funds to be used for constructing health facilities, there is no good reason to accumulate a large reserve. If the surplus accumulates up to the magnitude shown in Table Ⅵ-14, either the contribution rate or the coinsurance

Table Ⅵ-14. Projected Revenue and Expenditure Estimates of Compulsory Employee Health Insurance Program, 1977~81

(Unit: million won)

Items	1977	1978	1979	1980	1981
Persons Covered (1,000)	3,098	3,406	4,458	4,890	5,988
Insured	1,160	1,276	1,670	1,832	2,243
Family Dependents	1,938	2,130	2,788	3,056	3,745
Average Monthly Payroll of Insured (won)	73,000	85,410	99,930	116,920	136,790
Total Revenue	33,646	44,062	68,337	89,464	129,809
Contribution Receipts[1)]	33,228	42,765	65,485	84,051	120,396
Government Subsidy[2)]	418	459	601	659	807
Interest Receipts[3)]	-	838	2,251	4,754	8,606
Total Expenditure	28,272	35,004	52,291	64,771	89,622
Medical Benefits[4)]	25,500	32,259	48,190	60,325	83,472
Other Benefits[5)]	510	645	964	1,207	1,669
Administrative Cost[6)]	2,262	2,100	3,137	3,239	4,481
Surplus	5,374	9,058	16,046	24,693	40,187

Notes : 1) Based on the average contribution rate of 3.27 percent.
2) Based on the average monthly subsidy of=30 per insured worker. The figure was provided by the Ministry of Health and Social Affairs.
3) An annual interest rate of 15.6 percent was used.
4) For detailed projection of medical benefits, see Appendix Table 15.
5) Refer to maternity benefits and funeral allowance.
6) Estimated at 8 percent of total expenditures in 1977, 6 percent in 1978 and 1979, and 5 percent thereafter.

Sources: For the projection of covered persons see Appendix Table 14. Average monthly earning of ₩64,308 in 1976 derived from the Office of Labor Affairs survey was used as a bench mark for estimating the average monthly payroll of insured workers. Assumed nominal wage increase of about 17 percent per year between 1977 and 1981.

percentages, or both, may be in need of downward adjustment. Another alternative would be to revise the ceiling placed on the earnings used in computing the contribution rate. The usual practice throughout the world is to fix a maximum ceiling on the contribution base which approximates 1.5 to 2.5 times average earnings. This ceiling level usually covers 75 to 90 percent of the insured population and a similar percentage of the affected payroll

(Max Horlick and Robert Lucas, 1971).

Judging from these standards, the contribution limit of ₩400,000 under the compulsory insurance scheme may be too high. Based on an average monthly earning of ₩77,000 in 1977, the ₩400,000 ceiling would represent a multiple of 5.2. In a dynamic economy where productivity is increasing and earnings levels are rising, however, the significance of any fixed absolute amount changes over a period of time. In such an economy, the contribution base needs to be adjusted periodically.

5) Administration of the System and the Role of Government

For a social insurance system to be successful there must be reasonable certainty that the proposed benefits will be provided in an efficient way to all those covered by the system. It is not enough for the government to simply declare that it will guarantee the provision of health care benefits under law. A scheme that is so inefficiently organized and administered that it caused long delays in reimbursement and misunderstandings as to coverage, can lead to disillusion and disappointment with the system. Therefore, the question of how the social insurance program is organized and administered has important bearings on the success of the program.

As has been discussed previously, the newly adopted medical insurance program in Korea is administered by the mandatory health insurance associations established for workers in enterprises and industrial parks, and in the case of self-employed and others, by the voluntary associations organized in the respective local administrative districts; guns (counties), cities, towns, and villages. This multiple system undoubtedly has some advantages such as the promotion of decentralized democratic control, room for local initiative, and a more flexible deployment of voluntary effort. Also, in the case of the enterprise-based medical insurance association, the close collaboration of management and employees

in the administration of the association can help to create a desirable climate for industrial relations. At a local level it may also be easier to obtain the essential cooperation of the medical care industry, since the bureaucratic atmosphere and remoteness of central government operations can be avoided (Derick Fulcher, 1975).

However, there are many problems and disadvantages associated with this type of system, as is evident from the experience of Japan Among these are inequalities in contributions and benefits, double standards, and duplication of administration. At this stage of Korea's development, it is critically important to try to avoid the mistakes other countries have made in the past. Because of the potential advantages of economies of scale and of maximum uniformity with regard to coverage, facilities, and internal operation, the centralized management of a medical insurance program is likely to result in lower administrative costs and better control over benefits and coverage. Financial and administrative economies of scale increase in proportion to the size of the population covered. In other words, the larger the population covered by the scheme, the greater is the degree of risk spreading and the lower are the unit costs of operation. Any program financing mechanism that results in the establishment of a large number of small administrative units loses the advantage of risk pooling and the financial economies that central management offers. Thus the cost of a decentralized scheme will be much higher, and overall administration and coordination will be much more difficult to achieve than if the scheme were centralized (James R. Jeffers, 1976).

By establishing a large number of small administrative units and thus reducing the size of the risk pooling, administrative costs under the new medical insurance scheme are going to be high. It is very costly to establish within each medical insurance association the necessary collection and data processing systems, claims mechanism, and control and reporting apparatus. Administrative costs are unavoidable as long as contributions must

be collected and accounted for individually, detailed records must be kept, and the actuarial calculation made annually on an association basis. It is doubtful that, once benefit/contribution differentials are established, the compulsory merger of two or more medical insurance associations, as provided in Article 20 of the Law, can substantially reduce the administrative cost of the whole system.[17)]

According to the data compiled by the Ministry of Health and Social Affairs presented in Table Ⅵ-15, the average size of the 486 mandatory medical insurance associations registered with the Ministry as of July 5, 1977 is 2,386 insured persons.

Table Ⅵ-15. Average Number of Insured Persons per Association, by Province, 1977

Province	All Associations	Associations Excluding Industrial Estates
Seoul	2,212	2,030
Busan	2,340	2,340
Gyeong-gi	2,981	1,952
Gang-weon	1,117	1,092
Chung Bug	1,197	892
Chung Nam	1,846	1,758
Jeon Bug	1,657	1,059
Jeon Nam	1,632	1,457
Gyeong Bug	3,457	1,809
Gyeong Nam	5,475	3,975
Total	2,386	2,056

Source: Ministry of Health and Social Affairs, Social Insurance Bureau.

If the 19 associations located in industrial estates are excluded, the average number of insured persons per association is reduced to about 2,000. However, the average size varies

17) Article 20 of the Medical Insurance Law of 1976 provides that the Minister of Health and Social Affairs may, when deemed necessary, order the employers of two or more establishments employing the compulsory insured, to jointly organize a single association.

considerably from province to province, ranging from a low of only 892 persons in Chung Bug to a high of almost 4,000 in Gyeong Nam. In most provinces, however, a typical association has a membership of less than 2,000. It is interesting to compare the size of the insurance administrative units in Korea with those of other countries. In Japan, for instance, the society-managed health insurance scheme is operated by some 1,600 societies with a membership of about eleven million workers. Thus, the average society in Japan covers almost 7,000 insured persons (Japan Social Insurance Agency, 1976). In Switzerland, to cite another example, about three-quarters of all sickness fund members belong to only 22 funds, each fund including 40,000 or more persons (Derick Fulcher, 1975).

It thus appears that by having a large number of small associations, Korea's medical insurance scheme is going to lose the advantages of wider risk spreading and resource pooling that central administration offers. The achievement of social goals of the health care insurance program, i.e., to ensure that all persons have access to medical care, to eliminate financial barriers, and to limit the increase in health care costs, will eventually require the establishment of a government administered health insurance program. It is something of an anomaly that a compulsory insurance scheme supported by national law is to be privately managed. Korea's insurance scheme should be designed and operated in a way that guarantees national minimum standards. This cannot be achieved without some kind of direct participation by the government. Over the long run, it would be better to switch from administration by individual insurance associations to administration by a government agency. Such a system benefits from the far more effective control of services and costs, the easy portability of benefits, and the ability to advantageously negotiate service contracts achieving economies of scale. It also avoids duplication and waste and can direct resources to where they are most needed. The creation of a small central control staff would be more economical and effective than the training of great

numbers of persons who will undertake administrative tasks separately in a large number of individual health insurance associations.

The trend toward a centralized administration is apparent in other countries as will. Sweden succeeded in 1963 in transforming a system of numerous private sickness funds into a compulsory system administered by the government health insurance agency. The arguments for the replacement were; first, that low income people were not covered because they could not afford the contributions, and second, in order to keep contributions low enough to attract as many members as possible, the voluntary sickness insurance funds had to impose limits on the extent of medical care benefits which excluded the coverage of major risks. This change-over met some political opposition from those who believed that the sickness funds were small democratic institutions which should be preserved. Eventually most people were convinced that a national scheme was sensible, more effective, administratively cheaper, and less complicated to operate, since insured persons moving to a new area would no longer have to transfer from one fund to another (Derick Fulcher, 1975). In Belgium, where the administration of sickness insurance is dispersed among a large number of independent bodies, a special national agency has been established for collecting all contributions (Jerome Dejardin, 1968). Finally, the purpose of establishing a universal scheme in Great Britain in 1948 was to effect an equitable distribution of health resources and to make medical care services available in those parts of the country which had previously been under-provided (Brian Abel-Smith, 1976).

5. Summary and Policy Conclusions

The purpose of this study was to review and analyze the existing health care financing mechanisms in Korea, to clarify the principles and issues involved, and to assess the need for improvements in the broader context of the social security system in Korea. The major findings and important policy conclusions that emerge from the present study are summarized below:

1) Due to the rapid rate of economic development achieved since the early 1960s, health conditions in Korea have improved considerably over the past fifteen years. In terms of crude death rate and life expectancy, the general health status of Koreans compares favorably with those of other developing countries in Asia, such as the Philippines, India, and Indonesia. However, the infant mortality rate of Korea is still higher than those of Taiwan and Thailand. There is also a substantial problem of morbidity in Korea. Between 17 and 36 percent of the population suffer from an activity restricting illness during any given month. Prevalence rates are highest among rural residents, women, children under 5, and adults over 40 years of age. The period of activity restriction per patient averages 9.6 days a month.

2) A close analysis of demographic and socio-economic data reveal that a high proportion of the rural population in Korea consists of the young, the old, and the under-educated. Many of these persons lack a basic knowledge of sanitation and health care, including the ability to perceive illness and disease. Most of the rural population is engaged in farming and only a small number of them are regular wage and salary workers. These facts will have significant implications for future health care development in Korea. Clearly, persons living in rural areas are in the greatest need of health services.

3) The organization of health care delivery is relatively underdeveloped in Korea. The current health care system is far from being an integrated system in which needs and the allocation of resources are closely coordinated. It is more a collection of bits and pieces with overlaps, neglected areas, and wasted effort. The predominant pattern of medical care by

physicians is a single fee-for-service practice in urban areas. Group practice is almost non-existent. Medical school education tends to emphasize a high degree of specialization, thus limiting the number of physicians available for primary care. The bulk of health services are supplied through the mechanism of the free market. The expansion of the health care delivery capacity in the past has consisted almost entirely of increasing the number of hospital beds in the private sector. There is a gross imbalance in the distribution of health resources between urban and rural areas. There is also a considerable degree of under-utilization of hospital facilities, especially in urban areas, resulting in an inefficient allocation of the nation's scarce and expensive health resources.

4) Korea spent an estimated ₩245 billion (about $500 million) for health services in 1975. This amount represented 2.7 percent of the GNP. The average per capita health expenditure was ₩7,000 or $14. The role of government or social insurance in financing health care was very limited, and there were no commercial insurance carriers. Direct spending by individual consumers was the major source of financing for health services. Of the total amount Korea spent on health care in 1975, over 85 percent was made up of personal consumption expenditures. About 57 percent of all household health expenditures were for pharmaceutical products. This indicates that a significant proportion of treatment for acute illness in Korea is provided by nonphysicians such as pharmacists and oriental druggists.

5) The enactment of a new Medical Insurance Law in 1976 adds new momentum to the development of social security in Korea. It represents a new direction in health policy. The objectives of this law are to improve national health and to enhance social security by facilitating access to medical care and elimination the financial hardship of large medical care bills. However, much still needs to be done to make the system operate in an efficient and equitable manner.

6) The mandatory coverage of workers must soon be expanded drastically in order to encompass those persons

employed in firms with less than 500 employees. This is needed in order to prevent the creation of a double standard for persons who are in similar legal and economic situations. In view of the fact that the workers employed by small marginal firms are more likely to be medically indigent than those in large establishments, the extension of health protection to them and their families is most urgent. It is also desirable to bring medical insurance coverage more in line with the National Welfare pension program which covers enterprises employing 30 or more workers. The industrial accident insurance program covers workers in establishments with fewer than 30 persons.

7) The voluntary-coverage approach appears to be less than adequate in providing health care services to self-employed workers. The original intention of the government, with respect to voluntary coverage, was to create some kind of device to pool the financial resources of self-employed workers for the purpose of financing their medical care. In pursuing this end, however, it may be better not to draw the distinction between compulsory employee and voluntary community health insurance associations, but between a compulsory urban and a voluntary rural system. Such differentiation would also better reflect the basic difference in available medical resources between the urban and rural areas of Korea. It may currently be premature to settle on any one form of financing for rural health care programs. Consequently, it may be desirable to attempt as many experiments as possible until, after careful evaluation, one or two acceptable patterns of financing emerge.

8) Personal preventive medical care ought to play an important role in the insurance scheme, since preventive care is the most cost effective approach to solving health problems. However, there is no explicit provision in the law regarding this aspect of health care. The insurance scheme should meet a part or all of the costs of such services as prenatal care and periodic checkups. The law also does not make any provision for the victims of catastrophic illness. The consequences of this omission

are quite serious. Not only are persons with costly long-term sicknesses deprived of medical benefits after six months, but there is no income maintenance mechanism available to them during this period. This underlines the urgent need for cash sickness benefits and for considering the relation of the Medical Insurance Law to other branches of the social security system.

9) The main purposes of cost-sharing are to discourage abuses of excess care and to reduce the cost of the program by shifting a portion of the costs to the patient at the time of treatment. Imposition of uniform cost-sharing, however, places an exceptionally heavy burden on a low income person and deters him from seeking needed medical care, thus undermining a major goal of the medical insurance system. High patient shares can impose heavy financial burdens on even the nonpoor. One solution would be to relate any cost-sharing provisions to income and to set ceilings on how much any family would have to pay. While such an approach has certain advantages, it might also create some administrative problems. However, the idea of relating cost-sharing to income levels should not be abandoned completely. The present form of cost-sharing may be retained for the time being, with the possibility of modification as experience is accumulated.

10) The provision of the law which permits each medical insurance association to set contribution rates at from 3 to 8 percent of the total payroll invites great variations in benefit levels. Under the compulsory scheme alone, only 9 percent of the total population could potentially have 486 different combinations of benefits and contributions. Substantial inequalities in health insurance benefits pose serious social and economic problems and may hinder the mobility of the labor force and thus reduce its productivity. How to achieve and maintain equity among these schemes is one of the critical issues facing the nation. The major lesson to be learned from the experiences of other countries is that once such differences are established, entrenched, and apparent to everybody, they are extremely difficult to remove.

The important question then is: how does one hold the differentials within acceptable limits? After accumulating some experience in the operation of the law, a careful actuarial study must be conducted to verify whether the rate commensurate with the benefits as foreseen in the law, lies nearer the lower or the upper limits of the range. If the rate is near 4 percent, for example, then a uniform rate of 4 percent or at least a reduction in the variation will have to be implemented.

11) Article 51 of the Law provides that the employer and the employee each provide exactly half of the contribution. This provision, however, appears to be somewhat out of line with most international practices. The employer should not be forbidden to assume part or all of the employee contributions, regardless of whether this practice results from collective bargaining or unilateral The impact of cost-sharing is likely to be greater on low income employer action. The latter approach may often appear more advantageous to the employer than granting a wage increase.

12) Initial actuarial estimates reveal that the scheme is expected to result in a relatively rapid accumulation of surplus funds. Unless it deliberately intended to accumulate reserve funds for constructing health facilities, there is no reason to create a large reserve. If the assumptions underlying the estimates reflect the situation accurately and the surplus does accumulate as indicated in this study, either the contribution rate or the coinsurance percentages, or both, may be in need of downward adjustment. Another alternative would be to revise the ceiling placed on the earnings base which is used in computing the contribution amount. Judging from international precedent, the contribution limit of ₩400,000 (5.2 times average earnings) under the compulsory insurance scheme appears too high.

13) It is something of an anomaly that a compulsory medical insurance scheme established by national law is to be administered by a large number of small privately managed insurance associations. However, the average size of the 486

insurance associations is too small to take advantage of risk pooling and economies of scale since they contain an average of only 2,386 persons as compared with some 7,000 persons in Japan. Korea's insurance scheme should be designed and operated in a way that guarantees national minimum standards. This cannot be achieved without some kind of direct participation by the government. Consequently, over the long run it would be better to switch from administration by individual insurance associations to administration by a government agency. Such a system has several advantages including: more effective control of services and costs, the easy portability of earned benefits, and the ability to negotiate favorable service contracts. It also avoids duplication and waste and can thus direct resources to where they are most needed. The trend toward centralized administration is also apparent in other countries.

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APPENDIX

Appendix 1. Estimated National Health Expenditures, 1975

Health Expenditures	Amount (Billion Won)		Percent of Total(%)
Public Expenditures[1)]	32.8		13.4
Central Government	15.1		6.2
Local Governments	17.7		7.2
Private Expenditures	209.9		85.6
Personal Consumption Expenditures	206.0		84.0
Industry[2)]	3.9		1.6
Other[3)]	2.5		1.0
Total Health Expenditures	245.2		100.0
GNP	9,080.0		
Population (1,000)		34,681	
Health Expenditure/GNP Ratio (%)		2.7	
Per Capita Health Expenditures (won)		7,070	

Notes: 1) Refers to net expenditure (gross expenditure-intergovernmental transfers). Expenditures of national hospitals, provincial hospitals, and municipal hospitals are also included. See Ministry of Finance, Revenue and Expenditure Statement: 1975, December 1976 and Ministry of Home Affairs, Financial Abstract of Local Government, July 1976.

2) Estimated at 10 percent of total welfare expenditures, based on the formula:

$$\text{medical expenditures} = \text{sales} \times \frac{\text{welfare expenditure}}{\text{sales}} \times \frac{\text{medical expenditure}}{\text{welfare expenditure}}$$

Data are derived from the Bank of Korea, Financial Statements Analysis for 1975, June 1976.

3) Refers to spendings by the Korean National Tuberculosis Association, Korean Family Planning Association, Korean Institute of Family Planning, and the Korea Association for Parasite Eradication.

Appendix 2. Local Government Public Health Expenditure by Province, 1975

(Unit: million won)

Province	Health Expenditure						Per Capita Expenditure (won)	Health Expenditure as Percent of Total Expenditures
	General Account				Special Accounts[1)]	Total		
	Province	City	Gun	Sub-total				
Whole Country	10,918	3,119	6,889	20,926	2,831	23,757	685	2.4
Seoul	4,141	-	-	4,141	62	4,203	611	2.4
Busan	1,465	-	-	1,465	407	1,872	764	3.3
Gyeong-gi	592	530	1,131	2,253	122	2,375	589	2.1
Gang-weon	523	145	733	1,401	670	2,071	1,113	3.3
Chung Bug	293	94	524	911	277	1,188	781	2.5
Chung Nam	654	275	840	1,769	167	1,936	657	2.4
Jeon Bug	667	130	669	1,466	211	1,677	683	2.2
Jeon Nam	947	356	782	2,085	139	2,224	558	1.9
Gyeong Bug	862	1,277	1,205	3,344	409	3,753	773	2.7
Gyeong Nam	638	270	919	1,827	200	2,027	618	2.1
Jeju	136	42	86	264	167	431	1,046	3.3

Note : 1) Refer to public enterprise special account, education special account and other special accounts

Sources: Ministry of Home Affairs, Financial Abstract of Local Government: 1976, Seoul, July 1976; and Economic Planning Board, Monthly Statistics of Korea, Seoul, January 1977, p.4.

Appendix 3. Personal Consumption Expenditures and Medical Expenditure, 1960~1975.

(Unit: million won)

Year	Total Expenditure	Medical Expenditure[1)]	Medical as Percent of Total Expenditure
1960	207,260	4,754	2.3
1961	245,440	5,661	2.3
1962	293,790	7,582	2.6
1963	403,310	12,664	3.1
1964	586,310	14,085	2.4
1965	668,800	18,280	2.7
1966	805,180	24,379	3.0
1967	985,970	31,560	3.2
1968	1,204,440	42,447	3.5
1969	1,493,650	47,549	3.2
1970	1,884,250	53,275	2.8
1971	2,335,320	64,907	2.8
1972	2,844,450	89,571	3.1
1973	3,359,550	111,142	3.3
1974	4,702,980	168,140	3.6
1975	6,424,210	206,010	3.2

Note : 1) Unpublished data from the Bank of Korea.

Source: The Bank of Korea, *National Income in Korea: 1975*, Seoul, December 1975, pp.164~165, and *Provisional Estimates of Gross National Product*, December 1976.

Appendix 4. Medical Expenditure and Population, 1960~75

Year	Medical Expenditure[1] (million won)	Population (thousands)	Per Capita Medical Expenditure (won)
1960	5,754	24,954	190
1961	5,661	25,498	220
1962	7,582	26,231	290
1963	12,664	26,987	470
1964	14,085	27,678	510
1965	18,280	28,327	650
1966	24,379	29,160	840
1967	31,560	29,541	1,070
1968	42,447	30,171	1,410
1969	47,549	30,738	1,550
1970	53,275	31,435	1,690
1971	64,907	31,828	2,040
1972	89,571	32,360	2,770
1973	111,142	32,905	3,380
1974	168,140	33,459	5,030
1975	206,010	34,681	5,940

Note : 1) Medical care component of personal consumption Korea.

Sources: Economic Planning Board, *Monthly Statistics of Korea: July 1975*, Seoul, July 1975, p.4, and *Provisional Estimates of Gross National Products*, December 1976.

Appendix 5. Medical Expenditure and Disposable Income, 1960～75

(Unit: million won)

Year	Disposable Personal Income (A)	Medical Expenditure[1] (B)	(B)/(A) (%)
1960	204,310	4,754	2.3
1961	248,220	5,661	2.3
1962	283,620	7,582	2.7
1963	406,260	12,664	3.1
1964	600,180	14,085	2.4
1965	670,670	18,280	2.7
1966	847,750	24,379	2.9
1967	1,010,880	31,560	3.1
1968	1,227,380	42,447	3.5
1969	1,618,550	47,549	2.9
1970	1,972,270	53,275	2.7
1971	2,428,680	64,907	2.7
1972	2,990,600	89,571	3.0
1973	3,762,130	111,142	3.0
1974	5,241,620	168,140	3.2
1975	6,766,000	206,010	3.0

Note : 1) Medical care component of personal consumption expenditure. Unpublished data from the Bank of Korea.

Sources: The Bank of Korea, *National Income in Korea: 1975*, Seoul, December 1975, pp.164～165 and pp.182～183, and *Provisional Estimates of Gross National Product*, December 1976.

Appendix 6. Average Monthly Urban Household Consumption Expenditure by Type of Product, 1965 and 1975

Type of Product	1965		1975	
	Amount (won)	Percent of Total(%)	Amount (won)	Percent of Total(%)
Total Expenditure	9,260	100.0	62,960	100.0
Food and Beverage	5,330	57.6	27,830	44.2
Housing	1,210	13.1	10,520	16.7
Fuel and Light	530	5.7	3,340	5.3
Clothing	620	6.7	5,690	9.0
Medical Care	100	1.1	2,570	4.1
Personal Care	120	1.3	1,660	2.6
Education	370	4.0	3,520	5.6
Transportation and Communication	170	1.8	2,690	4.3
Cigarettes	250	2.7	1,200	1.9
Others	560	6.1	3,940	6.3

Note : Households as defined here refer to wage and salary households only.

Source: Economic Planning Board, *Annual Report on the Family Income and Expenditure Survey: 1975*, Seoul, August 1976, p.38 and p.47.

Appendix 7. Average Monthly Urban Household Consumption Expenditures by Type of Product and by Age, 1975

(Unit: won)

Type of Product	Age Group of Household Head								
	Average	24 Years and Less	25～29	30～34	35～39	40～44	45～49	50～54	55 Years and Over
Total Expenditure	62,960	49,180	49,240	54,820	62,640	76,740	83,520	72,580	59,550
Food and Beverage	27,830	22,980	22,240	25,270	29,100	31,820	33,840	31,350	27,190
Housing	10,520	6,880	8,090	9,770	10,920	13,370	13,330	10,300	8,120
Fuel and Light	3,340	2,850	2,820	2,990	3,480	3,960	4,060	3,440	3,140
Clothing	5,690	4,620	5,090	5,000	5,180	6,730	7,980	6,470	4,740
Medical Care	2,570	1,810	2,360	2,690	2,700	2,880	2,920	2,040	1,390
Personal Care	1,660	1,250	1,390	1,670	1,680	1,850	1,860	1,830	1,650
Education	3,520	2,420	770	920	1,900	6,600	9,090	7,860	6,240
Transportation & Communication	2,690	2,620	2,300	1,930	2,510	3,390	3,710	3,360	2,530
Cigarettes	1,200	1,050	1,300	1,190	1,150	1,210	1,250	1,150	1,150
Others	3,940	2,700	2,880	3,390	4,020	4,930	5,480	4,780	3,400

Note : See note on Appendix Table 6.

Source: Economic Planning Board, *Annual Report on the Family Income and Expenditure Survey: 1975*, Seoul, August 1976, p.99.

Appendix 8. Average Monthly Urban Household Consumption Expenditures by Type of Product and By Age, 1975

(Unit: %)

Type of Product	Age Group of Household Head								
	Average	24 Years and Less	25～29	30～34	35～39	40～44	45～49	50～54	55 Years and Over
Total Expenditure	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Food and Beverage	44.2	46.7	45.2	46.1	46.5	41.5	40.5	43.2	45.7
Housing	16.7	14.0	16.4	17.8	17.4	17.4	16.0	14.2	13.6
Fuel and Light	5.3	5.8	5.7	5.5	5.6	5.2	4.9	4.7	5.3
Clothing	9.0	9.4	10.3	9.1	8.3	8.8	9.5	8.9	8.0
Medical Care	4.1	3.7	4.8	4.9	4.3	3.7	3.5	2.9	2.3
Personal Care	2.6	2.5	2.8	3.0	2.7	2.4	2.2	2.5	2.8
Education	5.6	4.9	1.6	1.7	3.0	8.6	10.9	10.8	10.5
Transportation & Communication	4.3	5.3	4.7	3.5	4.0	4.4	4.4	4.6	4.2
Cigarettes	1.9	2.2	2.6	2.2	1.8	1.6	1.5	1.6	1.9
Others	6.3	5.5	5.9	6.2	6.4	6.4	6.6	6.6	5.7

Note : See note on Appendix Table 6.
Source: Same as Appendix Table 7.

Appendix 9. Average Monthly Urban Household Medical Expenditure by Income Group, 1975

Income Group	Medical Expenditure (won)	Persons per Household	Medical Expenditure per Person (won)
Average	2,570	5.15	500
19,999 and Less	660	4.58	140
20,000～29,999	830	4.31	190
30,000～39,999	1,320	4.58	290
40,000～49,999	1,860	4.94	380
50,000～59,999	2,110	5.28	400
60,000～69,999	2,760	5.36	510
70,000～79,999	3,030	5.47	550
80,000～89,999	2,970	5.61	530
90,000～99,999	3,570	5.56	640
100,000～109,999	3,990	5.93	670
110,000 and Over	6,270	5.79	1,080

Note : See note on Appendix Table 6.

Source: Economic Planning Board, *Annual Report on the Family Income and Expenditure Survey: 1975*, Seoul, August 1976, pp.78～79.

Appendix 10. Average Monthly Urban Household Consumption Expenditure and Medical Expenditure by Income Group, 1975.

(Unit: won, %)

Income Group	Total Expenditure (won)	Medical Expenditure (won)	Medical as Percent of Total (%)
Average	62,960	2,570	4.1
19,999 and Less	24,730	660	2.7
20,000～29,999	29,999	830	2.8
30,000～39,999	37,190	1,320	3.6
40,000～49,999	46,290	1,860	4.0
50,000～59,999	53,580	2,110	3.9
60,000～69,999	61,160	2,760	4.5
70,000～79,999	69,030	3,030	4.4
80,000～89,999	76,720	2,970	3.9
90,000～99,999	89,770	3,570	4.0
100,000～109,999	102,830	3,990	3.9
110,000 and Over	139,370	6,270	4.5

Note : See note on Appendix Table 6.
Source: Same as Appendix Table 9.

Appendix 11. Average Monthly Farm Household Consumption Expenditures and Medical Expenditure by Farm Size, 1975.

Farm Size (cheongbo)[1)]	Amount (won)		Medical Expenditure as Percent of Total Expenditure (%)
	Total Consumption Expenditure	Medical Expenditure	
Average	51,360	1,930	3.8
Less than 0.5	35,070	1,160	3.3
0.5～1.0	47,270	1,800	3.8
1.0～1.5	56,940	2,010	3.5
1.5～2.0	68,510	2,540	3.7
More than 2.0	89,270	4,090	4.6

Note : 1) One cheongbo is equivalent to 0.99174 hectare.

Source: Ministry of Agriculture and Fisheries, *Report on the Results of Farm Household Economy Survey: 1976*, Seoul, October 1976, p.36 and p.74.

Appendix 12. Average Monthly Urban Household Medical Care Expenditure by Type of Product, 1975

(Unit: won, %)

Type of Product	Amount (won)	Percent of Total (%)
Total	2,570	100.0
Drugs	1,473	57.3
Medicine for Cold	256	10.0
Digestive	79	3.1
Eutrophic	142	5.5
Antibiotic	44	1.7
Anthelmintic	16	0.6
Traumatic	47	1.8
Others	889	34.6
Physicians	862	33.5
Hospital Charges	217	8.4
X-ray	18	0.7

Note : See note on Appendix Table 6.

Source: Economic Planning Board, *Annual Report on the Family Income and Expenditure Survey: 1975*, Seoul, August 1976, p.108.

Appendix 13. Average Month Medical Expenditure by Size of Household, 1975

Size of Household (persons)	Medical Expenditure (won)	Persons per Household	Medical Expenditure per Person (won)
Average	2,570	5.15	500
2	1,710	2.00	860
3	2,320	3.00	770
4	2,290	4.00	570
5	2,570	5.00	510
6	2,970	6.00	500
7	2,660	7.00	380
8 and Over	3,320	11.14	300

Note : See note on Appendix Table 6.

Source: Economic Planning Board, *Annual Report on the Family Income and Expenditure Survey: 1973*, Seoul, August 1976, p.89.

Appendix 14. Projection of Persons Covered by the Medical Insurance System

(Unit: thousands)

Insurance System	1977	1978	1979	1980	1981
Insured					
Current Coverage[1)]	1,159.8	1,275.8	1,669.8	1,831.4	2,242.8
Additional Coverage[2)]	1,159.8	1,275.8	1,403.4	1,543.7	1,698.1
Additional Coverage[3)]	-	-	266.4	287.7	310.7
Family Dependents	-	-	-	-	234.0
Total Persons Covered	1,938.5	2,130.6	2,788.6	3,058.4	3,745.5
Total Population	3,098.3	3,406.4	4,458.4	4,889.8	5,988.3
Persons Covered as	36,420.0	36,982.1	37,553.5	38,137.6	38,736.6
Percent of Population (%)	8.5	9.2	11.9	12.8	15.5

Notes : 1) Firms with 500 workers or more and establishments located in industrial estates.
2) Firms with 300 workers or more
3) Firms with 200 workers or more

Sources: The 1977 base year coverage data are from the Ministry of Health and Social Affairs, Social Insurance Bureau; employment data from the Office of Labor Affairs, *Survey Report on Actual Labor Conditions at Establishments, 1976*, and *Yearbook of Labor Statistics*, 1976; Economic Planning Board, *Report on Mining and Manufacturing Census*, 1975; and population projection from Daiyoung Kim, *Population Projection in Korea*, Seoul: Korea Development Institute, July 1975, p.67.

Appendix 15. Projected Medical Benefit Payments under the Compulsory Employee Health Insurance Program, 1977~81

(Unit: million won)

Insurance Program	1977	1978	1979	1980	1981
Persons Covered (1,000)	3,098	3,406	4,458	4,890	5,988
Physician Services (outpatient)					
Average Cost per Case (won)[1)]	5,588	6,314	7,135	8,063	9,111
Case per 1,000 Covered Persons	1,500	1,500	1,400	1,300	1,300
Total Cost	25,967	32,258	44,531	51,256	70,924
Hospitalization Services					
Average Cost per Case (won)[2)]	139,700	157,861	178,383	201,573	227,777
Case per 1,000 Covered Persons	38.2	40.0	45.0	50.0	50.0
Total Cost	16,533	21,507	35,785	49,285	68,196
Total Medical Cost	42,500	53,765	80,316	100,541	139,120
Medical Benefit Payment[b]	25,500	32,259	48,190	60,325	83,472

Notes : 1) Assumed to increase at an annual rate of 13 percent which includes a 3-percent increase for quality improvement.
2) At 60 percent of total medical cost.

Sources: Medical care utilization and unit cost data used for deriving bench mark estimates are largely obtained from a number of existing health insurance demonstration projects, See Ok Ryun Moon, "Health Insurance Research: Financial Experience of Private Health Insurance Demonstration Plans in Korea", *Journal of the Korean Hospital Association*, June, July, August, 1976 and "Analysis and Evaluation of On-going Medical Insurance Programs", A Paper Presented at the Second Health Policy Seminar, Korea Development Institute, December 7, 1976. See also II Soon Kim, et al., *Development and Organization of Myun Level Health Care Services in Korea*, Seoul: Yonsei University, 1977 and "Initial Evaluation of Medical Aid Program in Korea", Seoul: Korea Health Development Institute, 1977.

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